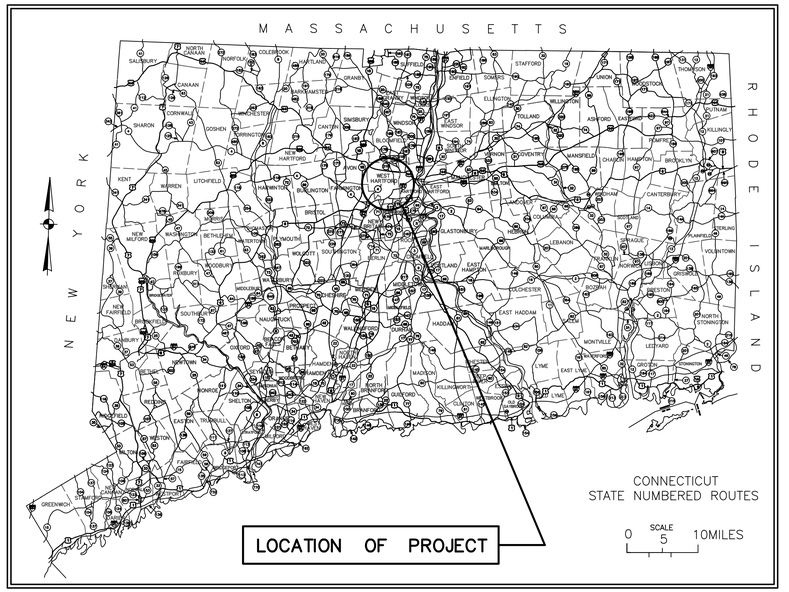
TOWN OF WEST HARTFORD
CONSTRUCTION PLANS
FOR
REHABILITATION
OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER
WEST BRANCH TROUT BROOK
FROM STA. 21+75 TO STA. 22+72
LENGTH 97 FEET ±

LOCATION PLAN
SCALE: 1"= 1000'



2004 SPECIFICATIONS, CDOT FORM NO. 816 INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS UP TO AND INCLUDING JANUARY 2014 GOVERN.

LIST OF DRAWINGS

SHEET NO.	TITLE
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2	INLAND WETLANDS PERMIT LETTER
3	TEST PIT PLAN
4	HIGHWAY CONSTRUCTION PLAN
5	PROFILES
6	CHANNEL REVETMENT DETAILS
7	SEDIMENTATION AND EROSION DETAILS
8	GENERAL PLAN
9	DECK PLAN AND TYPICAL SECTIONS
10	BRIDGE ELEVATIONS
11	CONCRETE REINFORCEMENT AND DEBRIS FIN
12	PARAPET DETAILS
13	MISCELLANEOUS & BRIDGE DETAILS
14–16	ABUTMENT & UNDERSIDE ARCH REPAIR DETAILS
17	SUBSTRUCTURE REPAIR DETAILS
18–19	METAL BRIDGE RAIL – THREE RAIL TRAFFIC
20	CONCRETE PAVEMENT JOINT DETAIL
21	CONCRETE PAVEMENT PLAN
22	ARCHITECTURAL FORMLINER DETAILS
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34	CONSTRUCTION SIGN SUPPORTS
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39	END BLOCK DETAILS
40	GATE DETAILS
42–43	WATER MAIN REPLACEMENT PLAN AND DETAILS

CONSTRUCTION CHANGE ORDER REVISIONS

SHEET NO.	DESCRIPTION	DATE	BY

RON VAN WINKLE
TOWN MANAGER

DUANE J. MARTIN P.E.
TOWN ENGINEER

STATE OF CONNECTICUT · JEFFREY A. SCALA · 17919 · LICENSED PROFESSIONAL ENGINEER

Jeffrey A. Scala

Digitally signed by Jeffrey A. Scala
DN: c=US, st=Connecticut, l=Rocky Hill, email=jscala@tectonicengineering.com, o=Tectonic Engineering & Survey Consultants PC, cn=Jeffrey A. Scala
Date: 2015.03.04 08:49:38 -05'00'

DESIGNED BY: TECTONIC ENGINEERING & SURVEYING CONSULTANTS P.C.

PER JEFFREY A. SCALA

DATE: 03/04/14

CONN. P.E. NO. 17919

APPROVED FOR BIDDING BY: TOWN OF WEST HARTFORD

PER _____

DATE: _____

INLAND WETLAND AND
WATERCOURSES AGENCY

January 16, 2015

Duane Martin
Town Engineer
Town of West Hartford
50 South Main Street
West Hartford, CT 06107-2485

SUBJECT: North Main Street Bridge Rehabilitation - IWW #1020

Dear Mr. Martin:

At its regular meeting of Monday, January 5, 2015, the West Hartford Town Plan and Zoning Commission, acting as the Inland Wetland and Watercourses Agency, gave consideration to the following item:

> **Application (IWW #1020)** of the Town of West Hartford (Duane Martin, Town Engineer) requesting approval of an Inland Wetlands and Watercourses Permit to conduct certain regulated activities which may have an adverse impact on a wetland and watercourse area (Trout Brook). The Town proposes to fully rehabilitate the North Main Street Bridge between Linbrook Road and Brookside Boulevard. The proposed rehabilitation will slow the bridge's deterioration, eliminate water penetration, improve load carrying capacity and extend its service life. (Submitted for IWWA receipt on December 1, 2014. Determined to be potentially significant and set for public hearing on January 5, 2015.)

After a detailed review of the application and its related exhibits and after consideration of staff technical comments, and the public hearing record the IWWA acted by **unanimous vote (5-0)** (Motion/Seder; Second/Freeman) (Donelson seated for Prestage) to **CONDITIONALLY APPROVE** the proposed regulated activity and to direct that a wetland permit to be issued. During its discussion and deliberation on this matter, the Agency made the following findings:

NORTH MAIN STREET BRIDGE REHABILITATION
INLAND WETLAND APPLICATION IWW#1020
COMPLIANCE WITH SECTION 10.2 and 10.4
STANDARDS AND CRITERIA FOR DECISION

The request to conduct certain regulated activities in West Hartford, Connecticut pursuant to an Inland Wetland and Watercourse application **IWW #1020** should be approved as the Standards and Criteria for Decision as set forth in the Inland Wetlands and Watercourses Regulations for the Town of West Hartford in Section 10.2 have been favorably met. During its discussions and deliberations on this matter, the agency made the following findings:

[1.] The environmental impact of the proposed regulated activity on wetlands or watercourses will not be so significant as to warrant the denial of this application.

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WEST HARTFORD, CONNECTICUT 06107-2431
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www.westhartford.org

[2.] The applicant's purpose for the proposed regulated activity is a valid and useful one which alternatives would cause less or no environmental impact to wetlands or watercourses;

[3.] The feasible and prudent alternatives to the proposed activity have been analyzed by the applicant and the proposed activity is likely to cause less or no environmental impact to wetlands or watercourses than those alternatives.

[4.] The short-term and long-term impacts of the proposed regulated activity on wetlands or watercourses are not to be so significant as to warrant denial of this application.

[5.] The long term productivity of the wetlands or watercourses will not be damaged by the approval of this application;

[6.] The proposed regulated activity will not cause irreversible and irretrievable loss of wetland or watercourse resources.

[7.] The proposed regulated activity neither threatens nor impacts the safety, health or reasonable use of property; and

[8.] The proposed regulated activity and future activities associated with or reasonably related to, the proposed regulated activities which are made inevitable by the proposed regulated activity will not have significant impacts on wetlands or watercourses outside the area for which the activity is proposed.

In addition the Agency considered measures which would mitigate the impact of the proposed activity and may be imposed as conditions of the permit. Such measures include the availability of further technical improvements or safeguards which could feasibly be added to the plan or action to avoid the reduction of or damage to the wetland's or watercourses natural capacity to support desirable biological life, prevent flooding, supply water, control sedimentation and/or prevent erosion, assimilate wastes, facilitate drainage, and provide recreation and open space. The Agency renders its decision to issue this permit on the following considerations and criteria:

A. That the natural functions and quality of water in local drainage systems both on and off-site shall be preserved and maintained.
B. That the overall impact of this development on the environment will be kept to a minimum if the conditions imposed by this permit are carried out by the applicant.
C. There are no reasonable and prudent alternatives which will allow the same activity to be carried out on the proposed site.
D. During the period when this permit remains in force, the applicant and the Inland Wetland and Watercourses Agency will be working together in good faith to resolve any matters that may arise relative to the environmental impact on the community due to the activities of the applicant.

The Agency hereby authorizes the applicant to conduct a series of regulated activities on parcels of land which fall under the jurisdiction of the Inland Wetlands and Watercourse Act of the Connecticut General Statutes and the Inland Wetlands and Watercourses Regulations of the Town of West Hartford. Said parcels of land are generally located on **172 & 175 North Main Street and 4 & 14 Wyndwood Road.**

This permit is issued and made subject to the following conditions:

1) Plans of record are incorporated by reference in this permit as fully set forth herein.
2.) Town Engineering Division and Planning Division shall receive copies of all material received by IWWA and DEEP.
3.) The wetland permit is subject to full compliance with the Town erosion and sediment requirements.
4.) This IWWA permit approval shall be stripped onto the final set plan.
5.) The applicant shall retain a professional engineer to oversee construction of all improvements and related facilities and certify they have been constructed in accordance with the approved plan.

SPECIAL SITE DEVELOPMENT AND EROSION CONTROL CONDITIONS

An integral requirement of this approval is the early installation and construction of all drainage facilities, and all needed erosion and sedimentation control measures. Prior to the start of any construction, related to on-site improvements, site grading or unit construction, the applicant shall install the needed protective measures and shall continuously maintain such throughout the construction process. The requirement of Article VIII, at Section 177-60 through 177-67 of the Code of Ordinances related to Erosion and Sedimentation Control shall govern all site construction activity.

In addition to the above basic requirements, this permit is issued and made subject to the following conditions:

1) The applicant shall retain a professional engineer to inspect/oversee construction and the installation/maintenance of the sedimentation and control measures. Inspection shall occur weekly and after each rainstorm and during major storm events to determine all sedimentation and erosion control measures are adequately in place and effective. Biweekly inspection reports shall be provided to the Town Planner and Town Engineer.
2) Removal of topsoil will not be permitted until the required siltation/erosion control devices have been installed and inspected by the applicant's engineer. The applicant's engineer shall certify that all erosion and sedimentation controls have been installed according to the approved plan.
3) Disturbed areas that will remain idle for extended periods shall be mulched or temporarily seeded for erosion control.
4) The top soil will be stockpiled only in an approved location and shall be contained by baled hay or screen filters which will be installed and maintained around the entire perimeter.
5) No unnecessary encroachments of construction equipment or vehicles shall be permitted in non-construction areas. Vehicular access to undisturbed areas of the site is restricted to the minimum necessary to complete erosion control and drainage systems.
6) Filters or hay bales shall be installed around all catch basins inlet grates.
7) During construction, outlets of any drainage systems shall be protected by hay bale filtration screens or splash pools.
8) In addition to the measures shown on the plans, additional erosion and sedimentation control measures shall be installed when determined necessary by the Director of Community Services, or his designee.
9) The placement and maintenance of all erosion and sediment control measures must meet or exceed specifications set forth in 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, by the Connecticut Council on Soil and Water Conservation.
10) The permit shall expire if not exercised within two (2) years from the date of issuance, or date of final resolution of any legal action challenging this permit. This permit shall not be assigned, transferred, sublet or sold to any other person without written permission of the Agency.

By this letter the IWWA is transmitting a notice of IWW permit approval. This notice is given to the West Hartford Town Clerk and to the State of Connecticut Department of Energy & Environmental Protection per the requirements of the Inland Wetlands and Watercourses Regulations.

If you have any questions regarding this letter, please feel free to contact the Planning Office at 860.561.7555.

Very truly yours,

Kevin Ahern, Chairman
TPZ/IWWA

Cc: Mark McGovern, Director of Community Services
Essie Labrot, Town Clerk
Todd Dumais, Town Planner
Joseph O'Brien, Corporation Counsel
Duane Martin, Town Engineer
Brian Pudlik, Zoning Enforcement Officer
Brian McCarthy, Conservation and Environment Commission
Department of Energy & Environmental Protection
Subject IWW File

U: sd/TPZ/decisionletters/2015/NorthMain172_175_IWW#1020_Jan15

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S. | Drawn by: K.R.F. | Checked by: J.A.S.

Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

STATE OF CONNECTICUT JEFFREY A. SAHA LICENSED PROFESSIONAL ENGINEER

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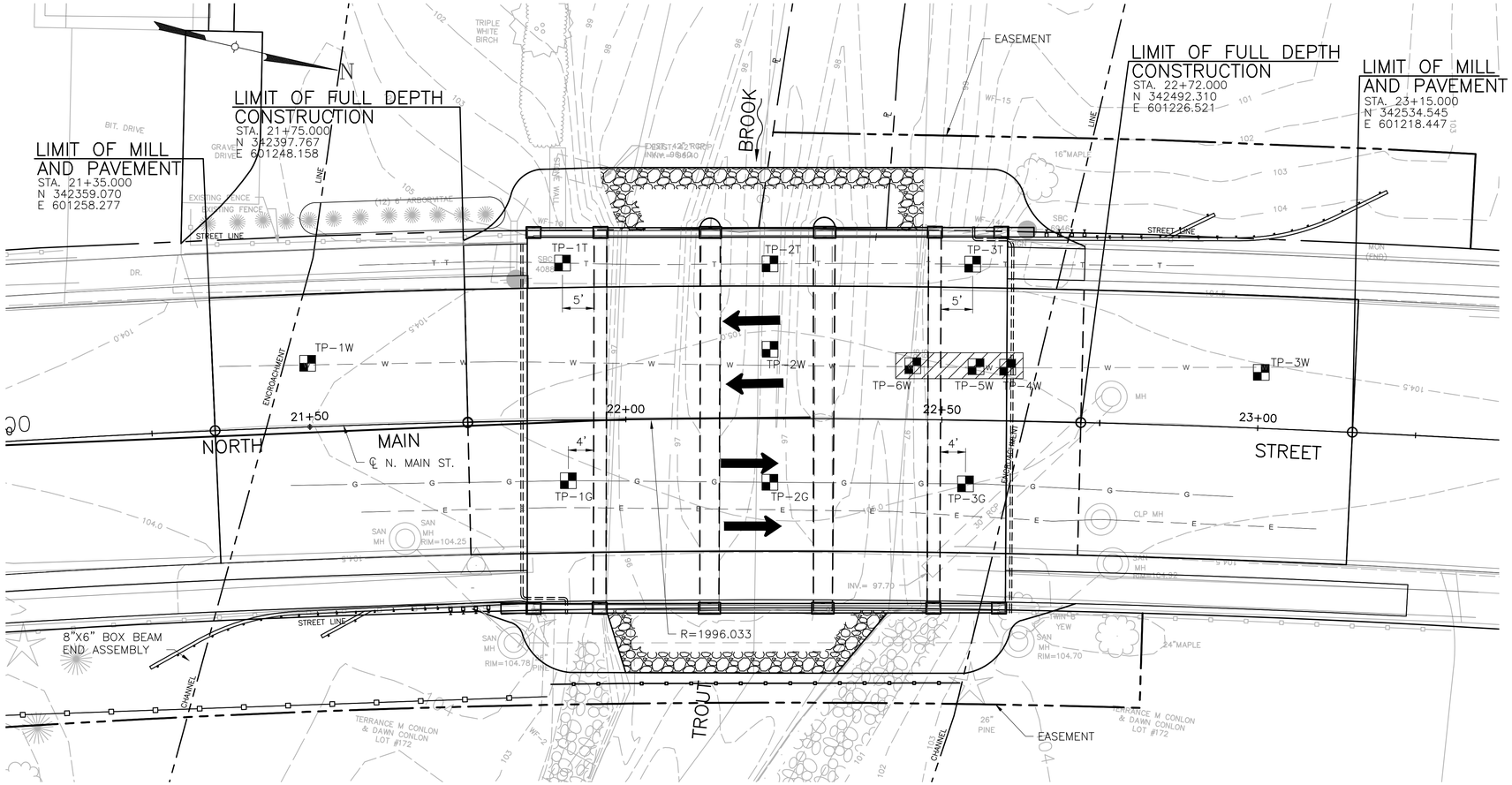
INLAND / WETLANDS PERMIT LETTER

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	2	0

Scale: AS SHOWN



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

PLAN
SCALE: 1" = 10'-0"

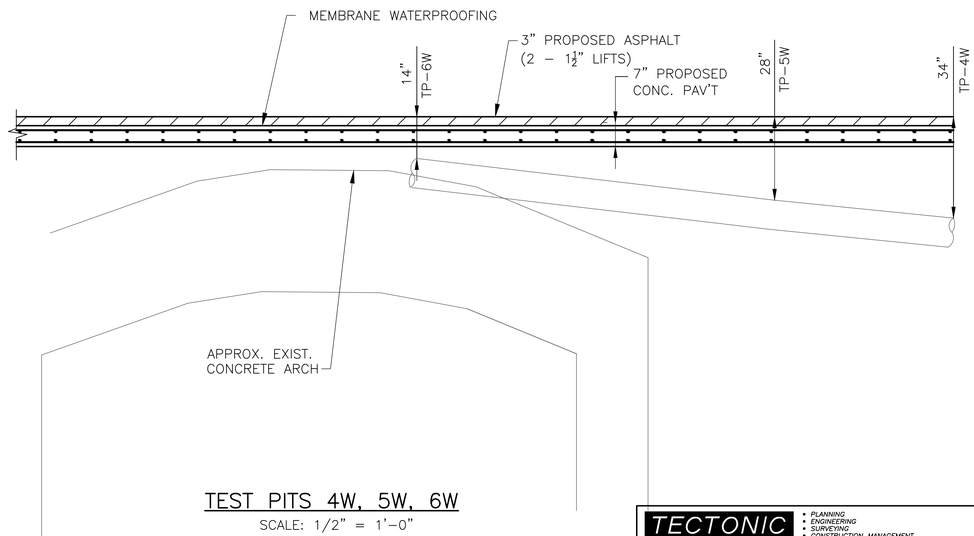
LEGEND:

DENOTES TEST PIT LOCATION.

DENOTES TEST PITS PEVIOUSLY OBTAINED BY MDC.

TEST PIT NOTES:

1. THE CONTRACTOR SHALL OBTAIN TEST PITS AS PART OF HIS WORK REQUIRED TO MAINTAIN, PROTECT AND SUPPORT EXISTING UNDERGROUND UTILITY SERVICES.
2. THE LOCATION OF TEST PITS IS APPROXIMATE.
3. THE CONTRACTOR SHALL CALL "CALL BEFORE YOU DIG" IN ADVANCE TO LOCATE THE EXISTING UTILITIES.
4. THE CONTRACTOR CANNOT START THE WORK WITHOUT THE PRESENCE OF A UTILITY REPRESENTATIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT AND COORDINATE THE WORK WITH THE UTILITY COMPANIES.
5. INFORMATION RECEIVED FROM CL&P INDICATE THAT THE ORIGINAL DUCTS AT THE BRIDGE ARE EMPTY, HOWEVER THIS SHALL BE VERIFIED BY THE CONTRACTOR



TEST PITS 4W, 5W, 6W
SCALE: 1/2" = 1'-0"

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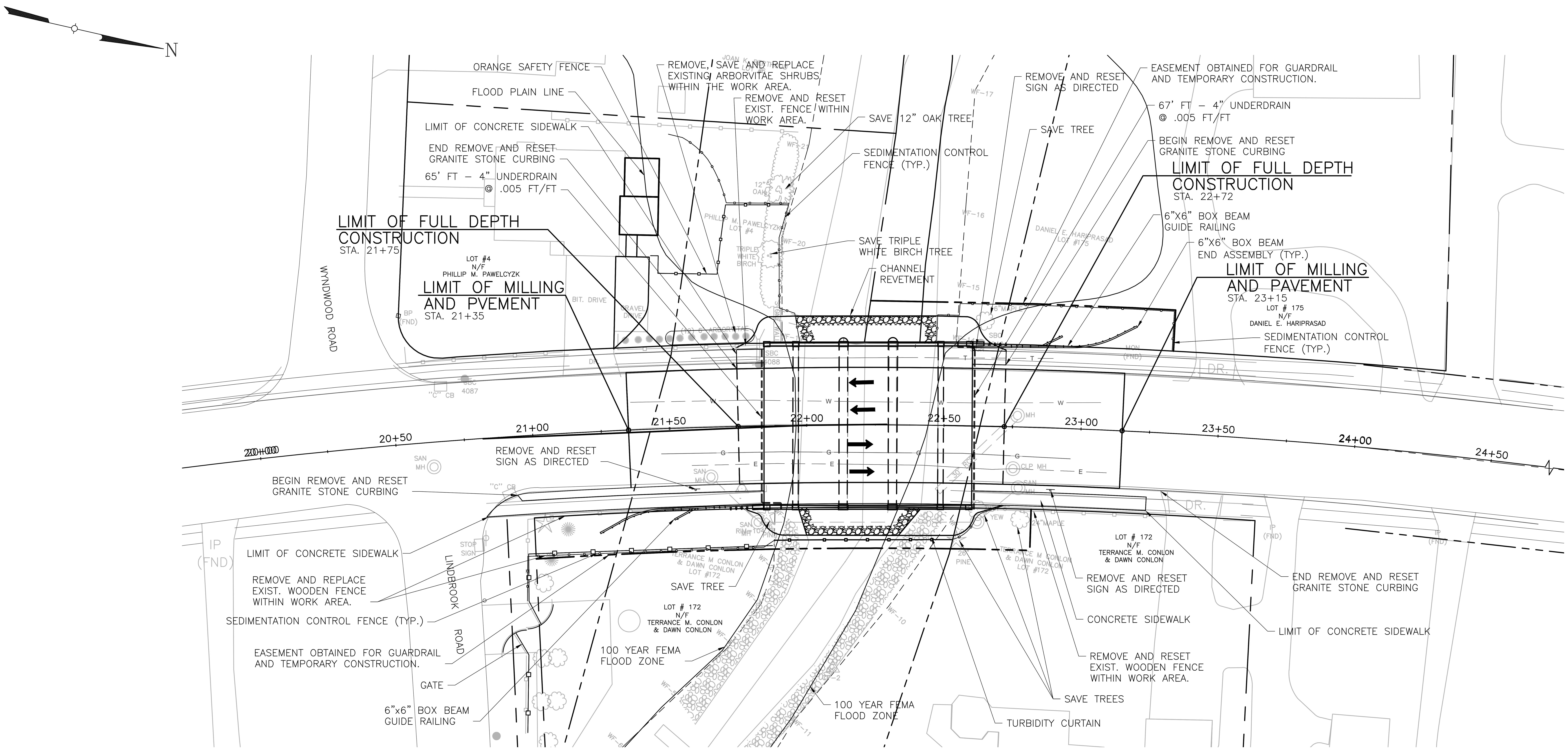
TEST PIT PLAN

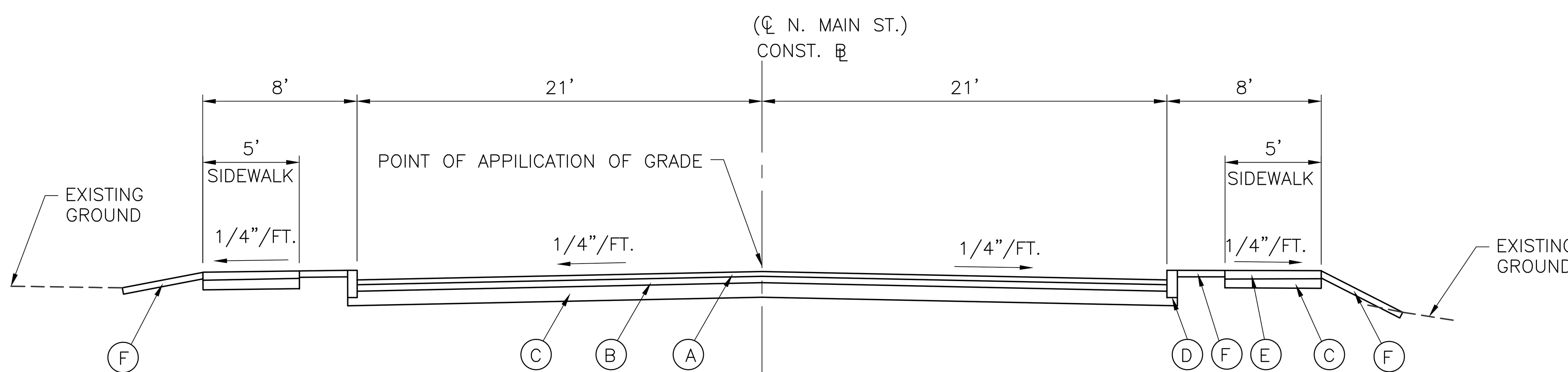
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	3	0
Scale: AS SHOWN			



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

PLAN
SCALE: 1" = 20'-0"



TYPICAL ROADWAY SECTION
SCALE: 3/16" = 1'-0"

LEGEND
- (A) 3" SUPERPAVE 0.5 (IN TWO LIFTS) (SURFACE COURSE)
- (B) 4" SUPERPAVE 1.0 (BINDER COURSE)
- (C) 9" PROCESSED AGGREGATE BASE
- (D) GRANITE CURB
- (E) 5" CONCRETE SIDEWALK WITH ONE LAYER OF WIRE MESH (6X6-10/10 WWF) (6" AT DRIVEWAYS)
- (F) 4" TOPSOIL & TURF ESTABLISHMENT

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: K.R.F.	Checked by: J.A.S.
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○ For Approval		
○ For Bid		
○ For Construction		

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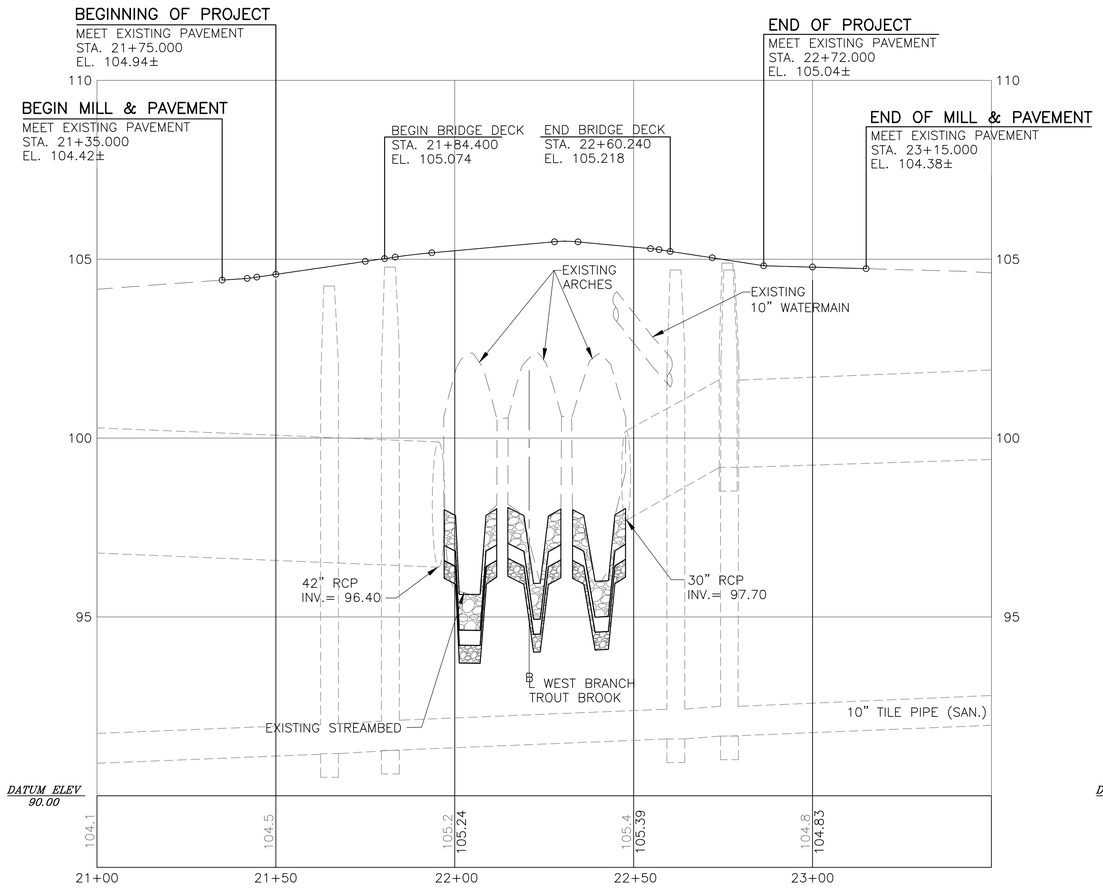
CONSTRUCTION PLAN

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

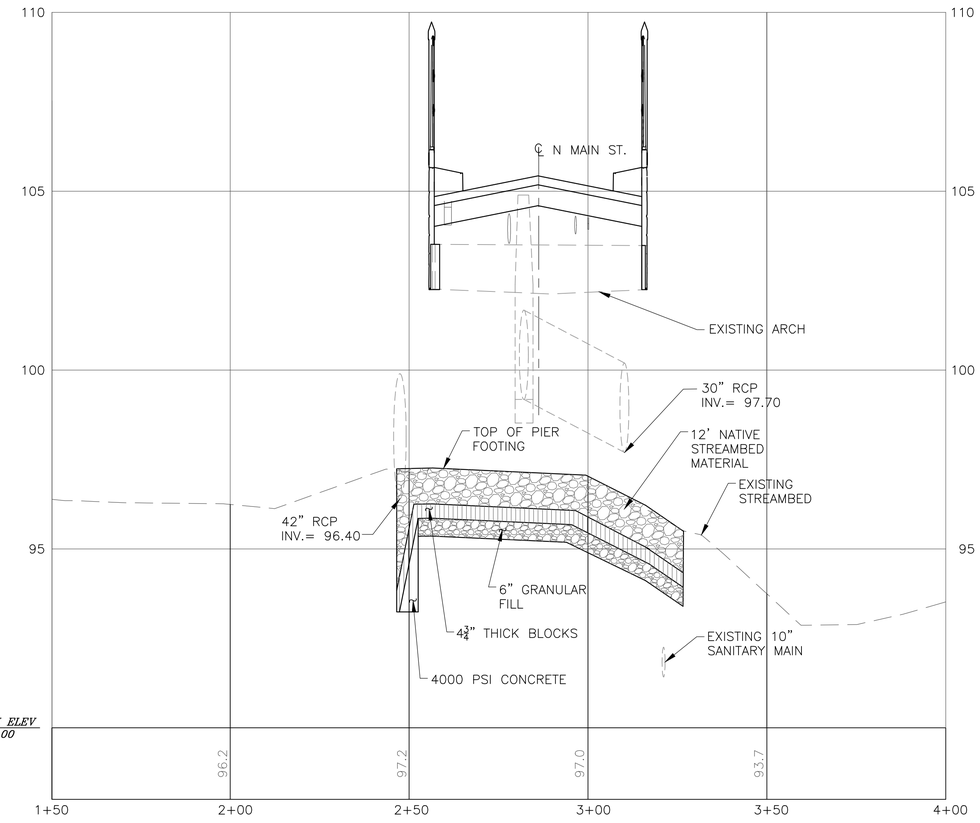
Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	4	0

Scale: AS SHOWN



NORTH MAIN STREET PROFILE

SCALE: 1"=20' HORZ.
1"=2' VERT.



WEST BRANCH TROUT BROOK PROFILE

SCALE: 1"=20' HORZ.
1"=2' VERT.

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PROFILE

REHABILITATION OF BRIDGE NO. 03651
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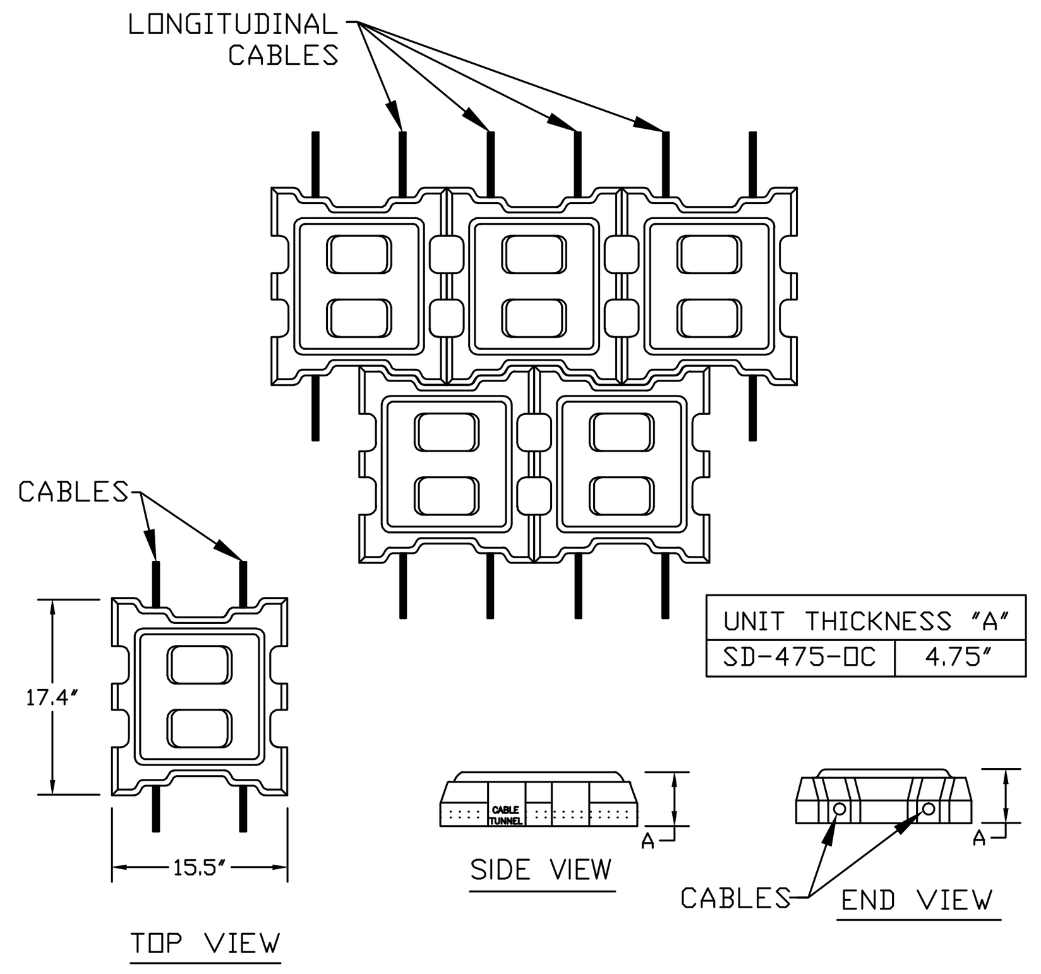
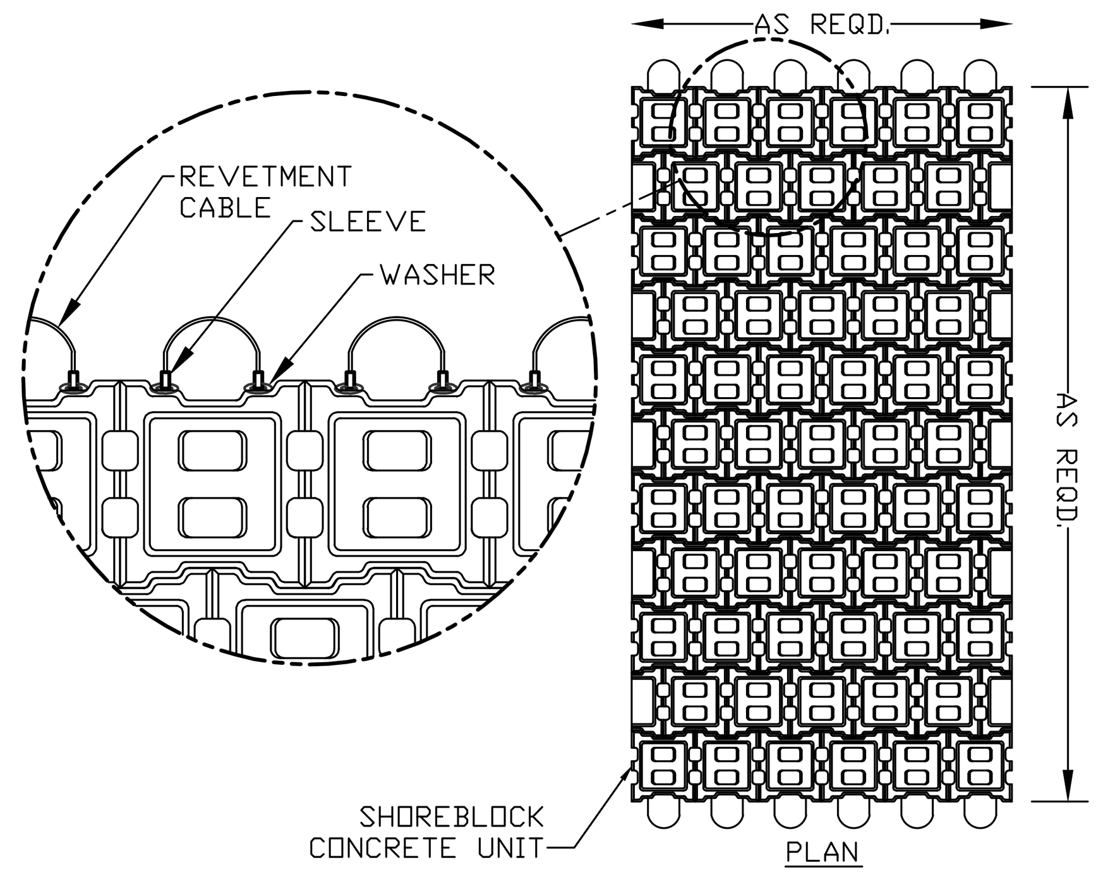
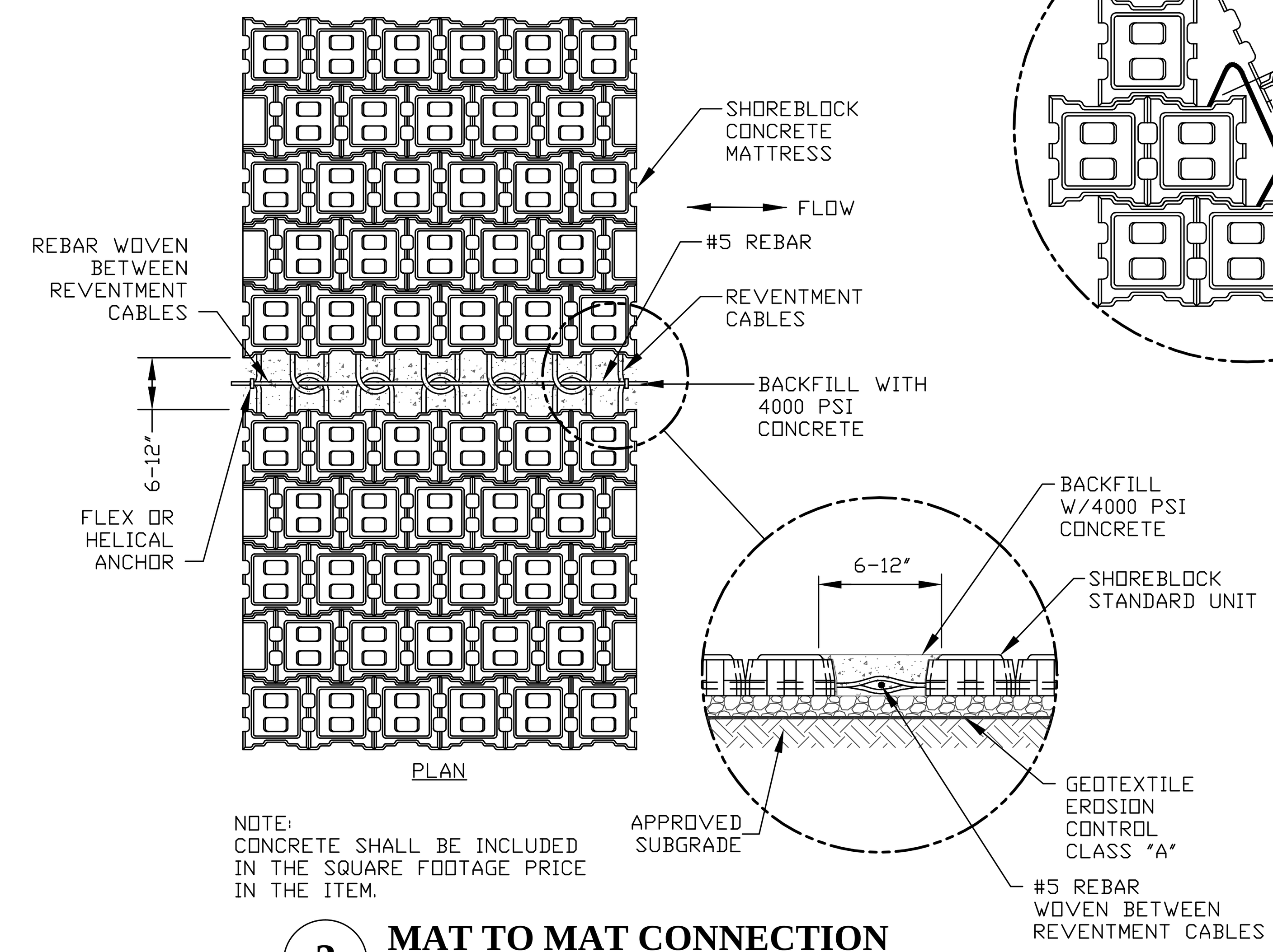


1 SHOREBLOCK® SD-475-OC BLOCK
NOT TO SCALE

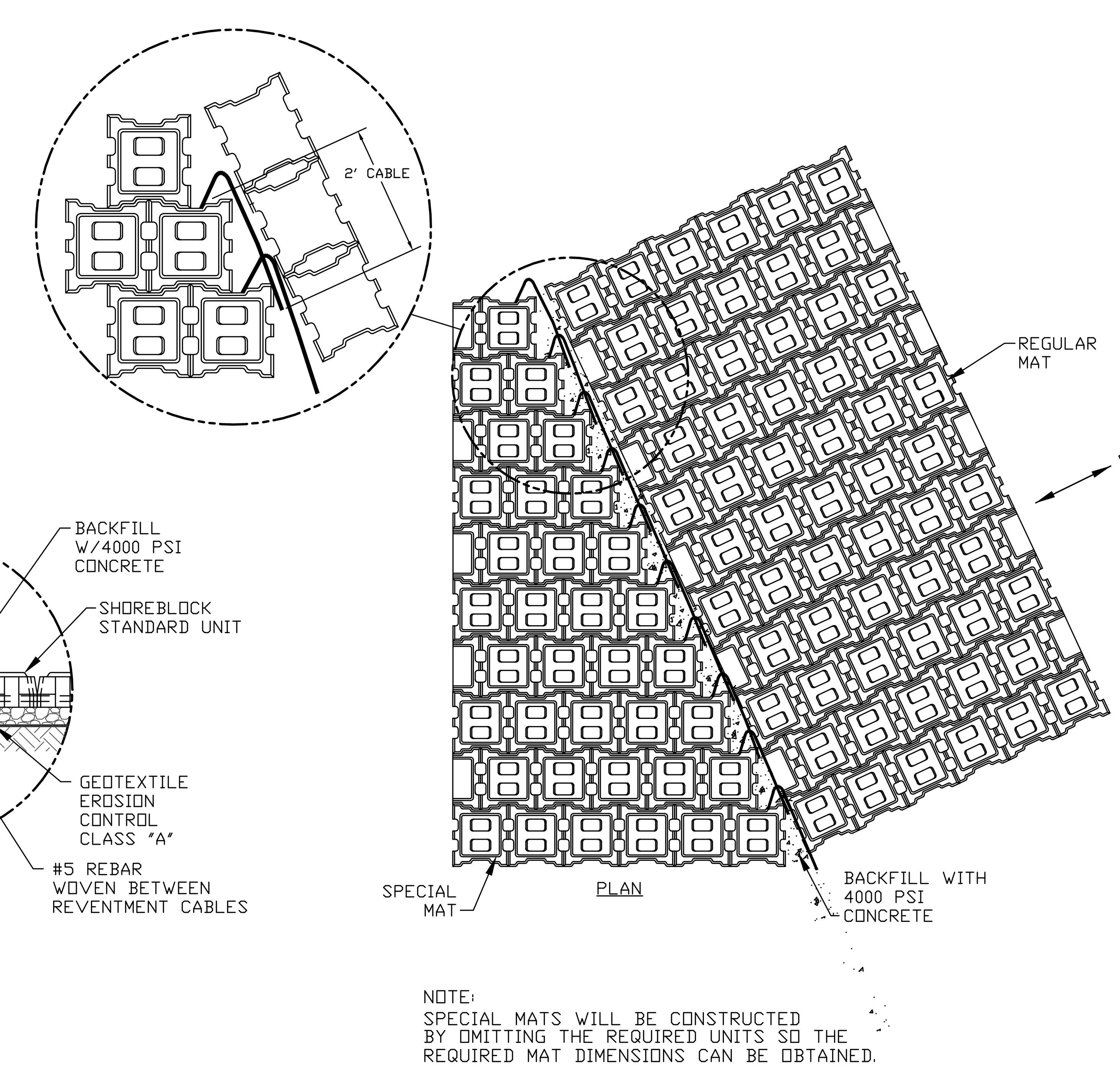


2 SHOREBLOCK® SD-475-OC MATTRESS
NOT TO SCALE



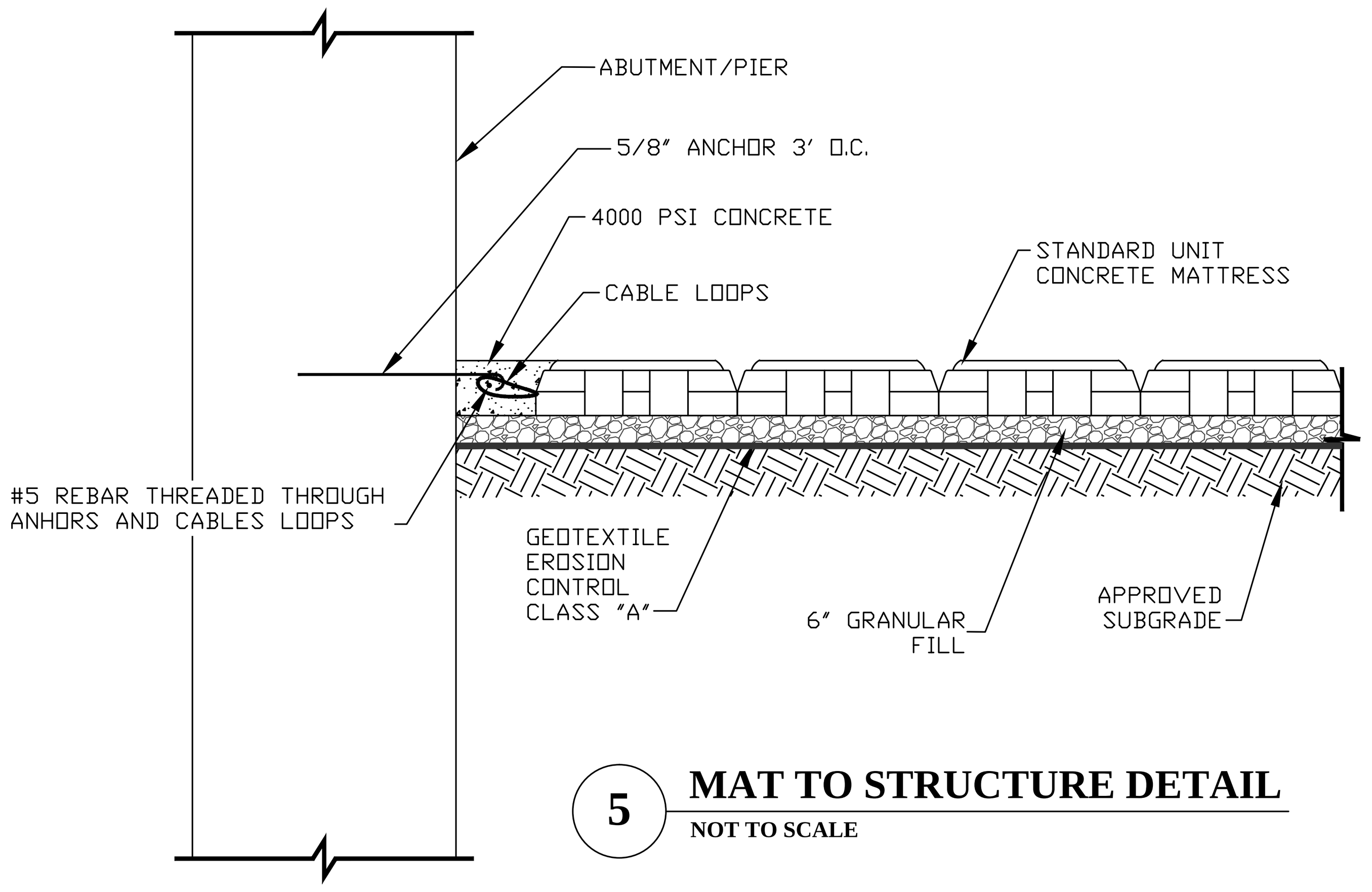
NOTE:
CONCRETE SHALL BE INCLUDED IN THE SQUARE FOOTAGE PRICE IN THE ITEM.

3 MAT TO MAT CONNECTION
NOT TO SCALE

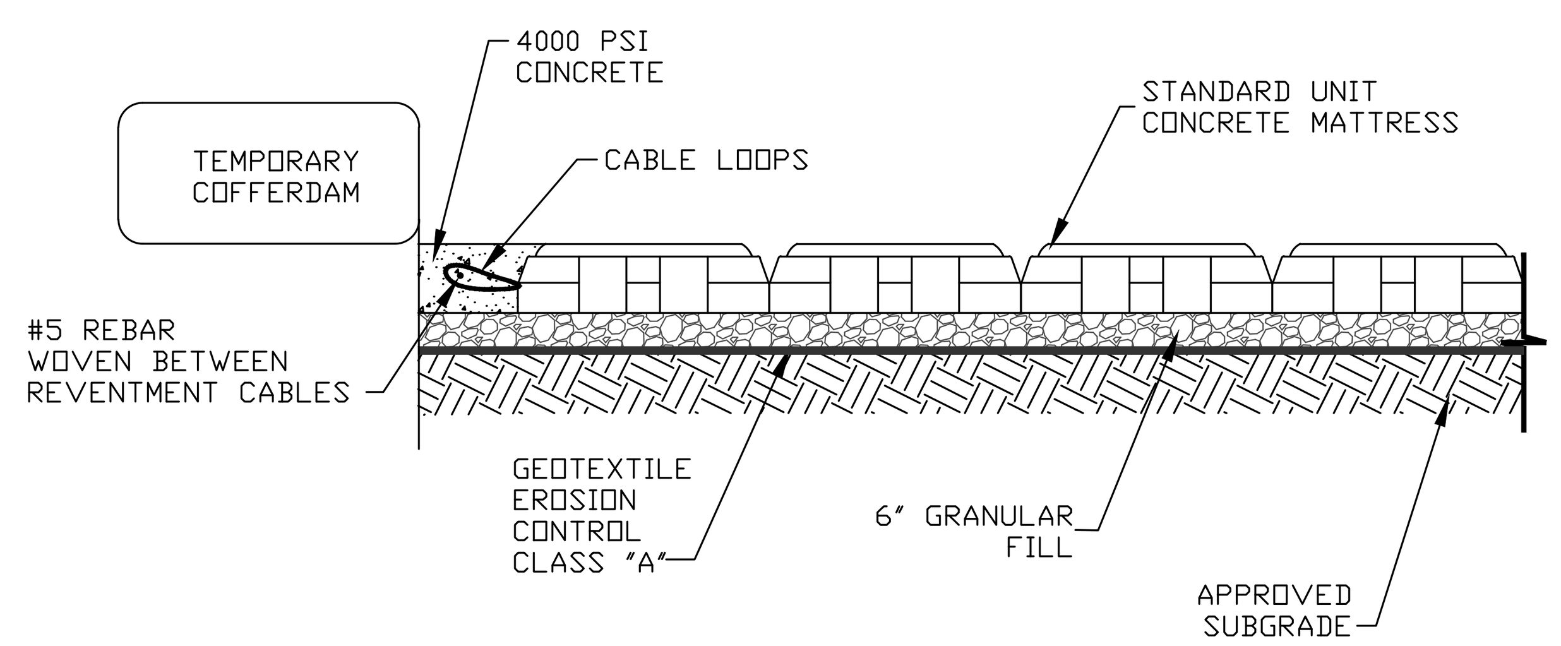


NOTE:
SPECIAL MATS WILL BE CONSTRUCTED BY OMITTING THE REQUIRED UNITS SO THE REQUIRED MAT DIMENSIONS CAN BE OBTAINED.

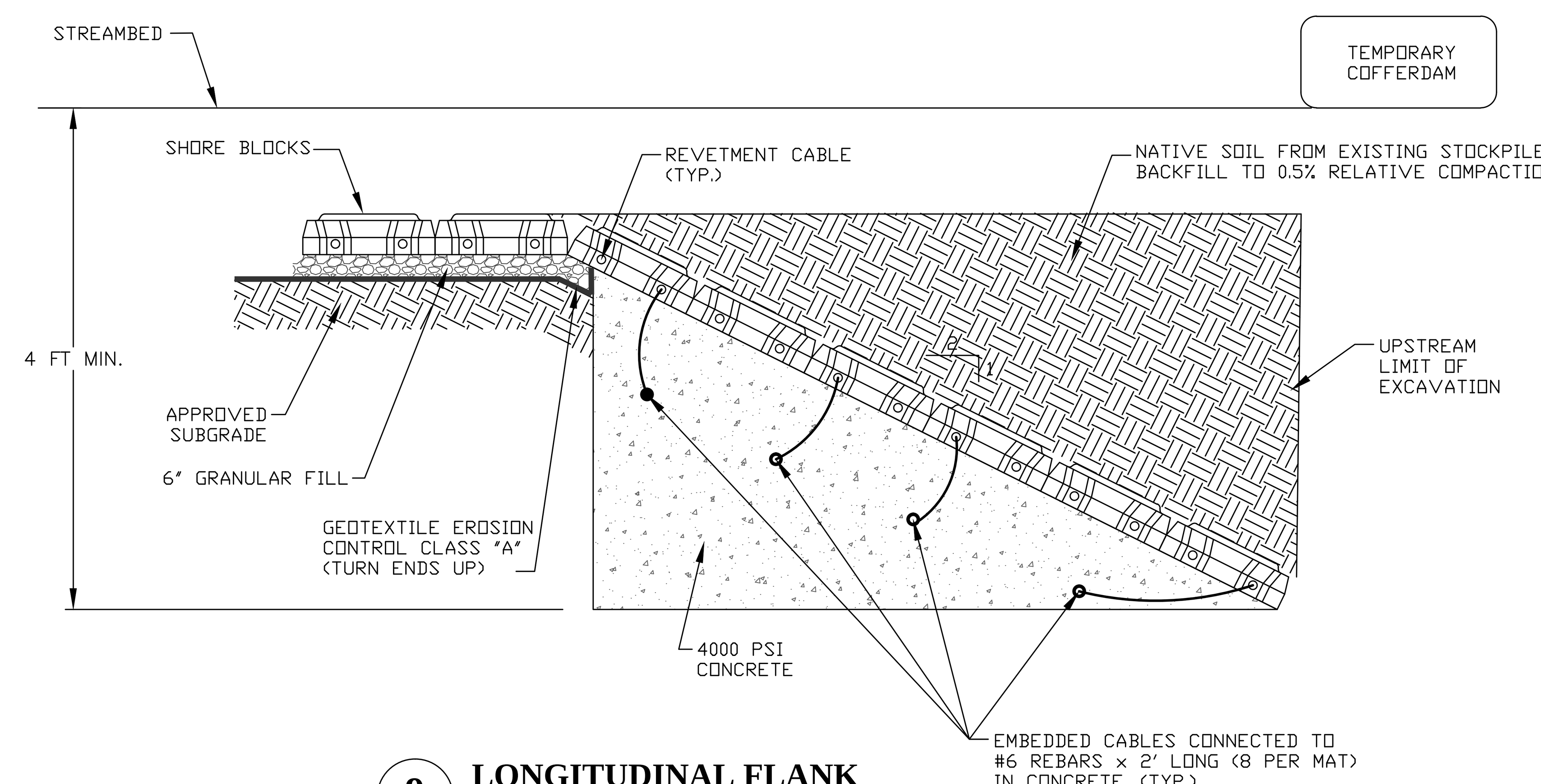
4 TYP. ANGLE MAT
NOT TO SCALE



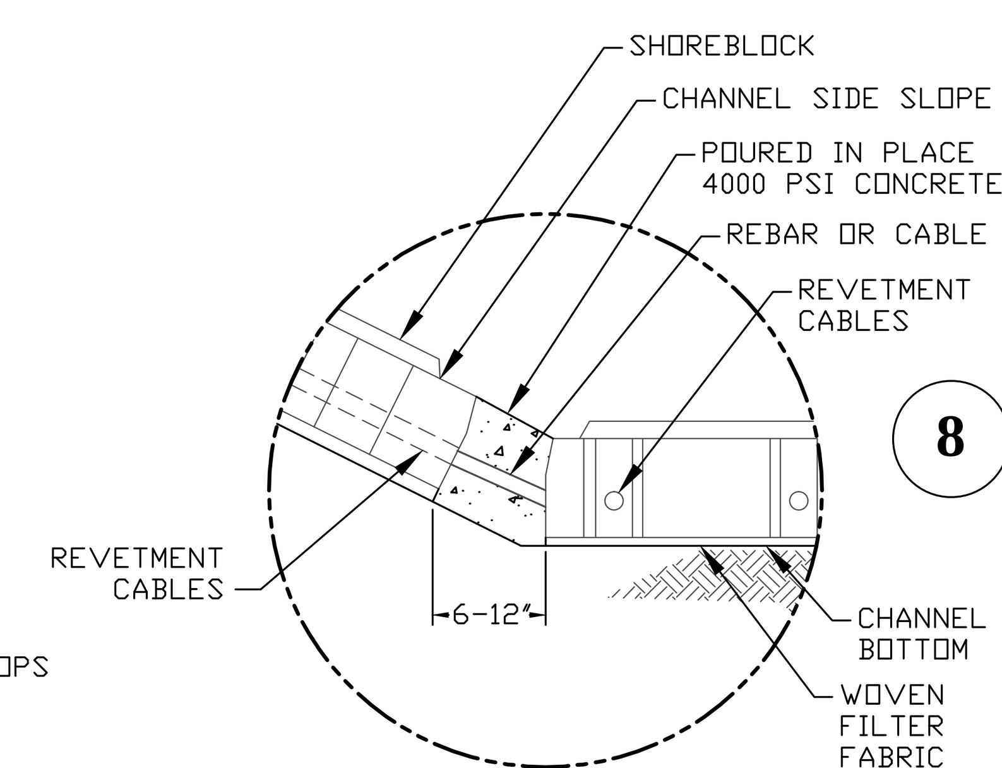
5 MAT TO STRUCTURE DETAIL
NOT TO SCALE



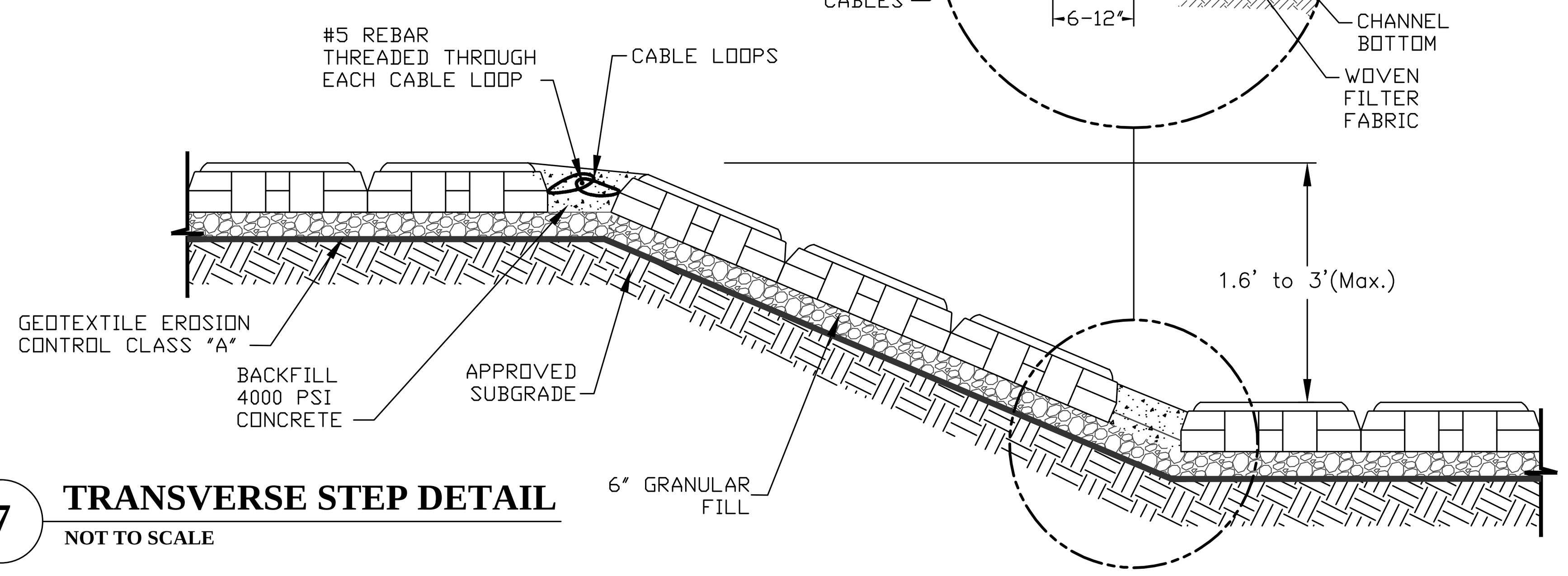
6 MAT TO COFFER DAM DETAIL
NOT TO SCALE



9 LONGITUDINAL FLANK
NOT TO SCALE



8 SIDE SLOPE CONNECTION DETAIL
NOT TO SCALE



7 TRANSVERSE STEP DETAIL
NOT TO SCALE

NOTE:
1. THE CHANNEL REVETMENT SHALL BE SHOREBLOCK SD-475 AS MANUFACTURED BY SHORTEC OR APPROVED EQUAL.
2. CONCRETE SHALL BE INCLUDED IN THE S.F. PRICE OF THE ITEM.

0 1 2 3
ORIGINAL SIZE IN INCHES

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CHANNEL REVETMENT DETAILS

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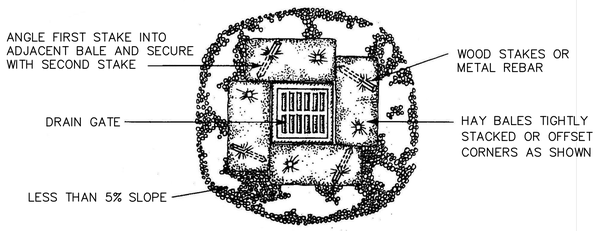
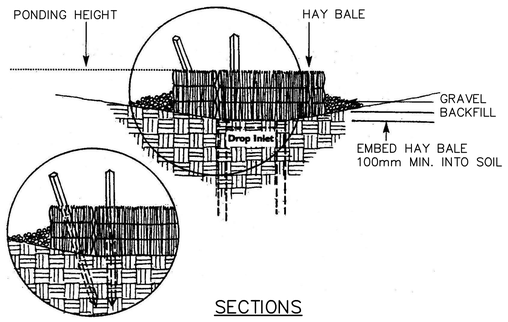
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	6	0
Scale: AS SHOWN			

NOTE:
1. ALL WORK SHALL BE IN CONFORMANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.



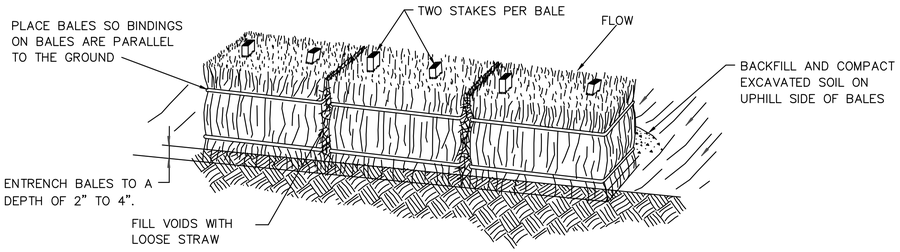
PLAN



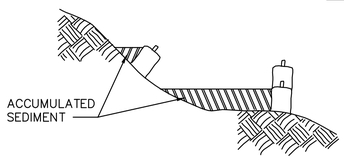
SECTIONS

HAY BALE INSTALLATION AT CATCH BASIN

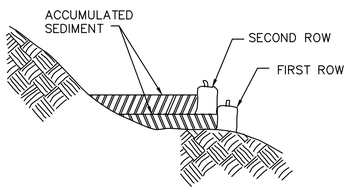
NOT TO SCALE



HAY BALE BARRIER



WRONG PLACEMENT OF SUPPLEMENTAL HAY BALES

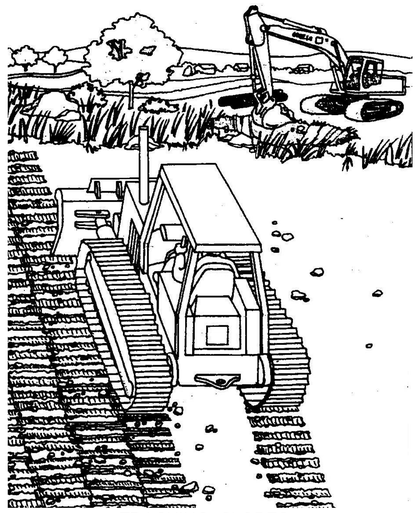


CORRECT PLACEMENT OF SUPPLEMENTAL HAY BALES

PREFERRED PLACEMENT:

BALES PLACED AWAY FROM TOE OF SLOPE HAVE A LARGER CONFINEMENT AREA. ADDITIONAL BALES SHOULD BE ADDED BEHIND THE ORIGINAL BALES WHEN SEDIMENTATION ACCUMULATION IS ABOUT ONE HALF THE HEIGHT OF THE FIRST ROW.

DIKES HAY / STRAW BALES



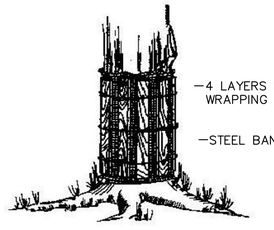
TRACKING SLOPES

SURFACE ROUGHENING DETAILS

NOTES:

1. ALL CUT AND FILL SLOPES BETWEEN 2:1 AND 4:1 INCLUSIVE SHALL BE TRACKED.
2. ROUGHENING WITH TRACKED MACHINERY ON SOILS WITH A HIGH CLAY CONTENT IS NOT RECCOMENDED UNLESS NO ALTERNATIVES ARE AVAILABLE. UNDUE COMPACTION OF SOIL RESULTS FROM THIS PRACTICE. SANDY SOILS DO NOT COMPACT SEVERELY, AND MAY BE TRACKED. IN SANDY SOILS TRACKING MAY NOT BE AS EFFECTIVE AS OTHER ROUGHENING METHODS DESCRIBED. WHEN TRACKING IS THE CHOSEN SURFACE ROUGHENING TECHNIQUE, IT SHALL BE DONE BY OPERATING TRACKED MACHINERY UP AND DOWN THE SLOPE TO LEAVE HORIZONTAL DEPPRESSIONS IN THE SOIL. AS FEW PASSES AS POSSIBLE OF THE MACHINERY SHOULD BE MADE TO MINIMIZE COMPACTION.
3. IMMEDIATELY FOLLOWING SURFACE ROUGHENING, PROTECT THE SOIL FROM EROSION BY SEEDING AND / OR MULCHING.

TREE PROTECTION ZONING FENCING



TRUNK ARMORING

NOTE: TRUNK ARMORING USED FOR PROTECTING STREET TREES ADJACENT TO CONSTRUCTION AREA WHERE PAVED SURFACES MAKE IT IMPRACTICAL TO ESTABLISH TREE PROTECTION ZONE.

TREE PROTECTION DETAILS

NOT TO SCALE

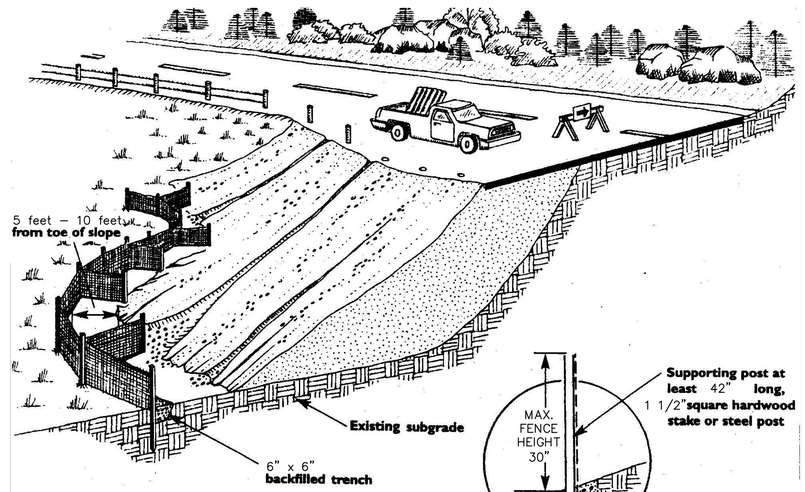
HAY BALE INSTALLATION

A) IDEALLY, BALES SHOULD BE ENTRENCHED 2" TO 4" AND TIGHTLY BUTTED TOGETHER. BALES CAN BE SUCCESFULLY PLACED WITHOUT A TRENCH IF GOOD GROUND CONTACT IS MADE. REMOVE HEAVY BRUSH AND FILL ALL VOIDS WITH LOOSE STRAW. PLACE HAY BALE AND STAKE FIRST AT ANGLE TOWARDS FIRST BALE. STAKES ARE 18" INTO GROUND

B) BALES SHOULD BE ONLY USED AS A TEMPORARY BARRIER AND FOR NO LONGER THAN 60 DAYS. THEY SHALL NOT BE USED ON A JOB ADJACENT TO A RESIDENTIAL NEIGHBORHOOD, RESIDENCES OR ADJACENT TO OR IN A WATERCOURSE.

C) WHEN SEDIMENTATION DEPOSITS REACH WITHIN 6" OF THE TOP OF BALES, REMOVE SEDIMENTATION OR ADD ADDITIONAL BALES ON SEDIMENTATION DIRECTLY BEHIND FIRST ROW OF BALES AS DIRECTED BY ENGINEER.

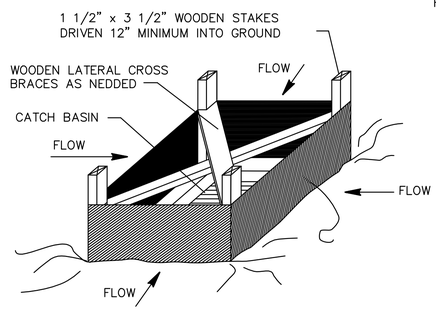
D) UPON ESTABLISHMENT OF GROUND COVER ON DISTUBED AREAS AND WHEN DIRECTED BY ENGINEER, HAY BALES WILL BE REMOVED AND USED AS MULCH. ANY SEDIMENTATION WILL BE THINLY SPREAD UPON ESTABLISHED GROUND COVER.



SILT FENCE INSTALLATION AT TOE OF SLOPE

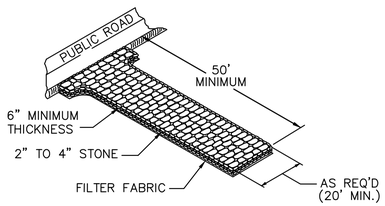
NOTES:

A) MINIMUM LENGTH OF SILT FENCE IS 15 FT.
B) MAXIMUM POST SPACING IS 10 FT.
C) JOINTS ONLY AT SUPPORT POST WITH MINIMUM 6" OVERLAP SECURELY SEALED.
D) SEDIMENTATION DEPOSIT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE SILT FENCE.
E) SILT FENCE SHALL NOT BE USED IN A WATER COURSE.
F) UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS, AND WHEN DIRECTED BY THE ENGINEER, FENCE WILL BE REMOVED AND ANY SEDIMENTATION WILL BE THINLY SPREAD UPON EXISTING GROUND COVER.



SILT FENCE INSTALLATION AT CATCH BASIN

NOT TO SCALE



ANTI–TRACKING PAD

NOT TO SCALE

THE COST OF THE ANTI–TRACKING PAD IS TO BE INCLUDED UNDER GENERAL COST OF THE WORK.

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

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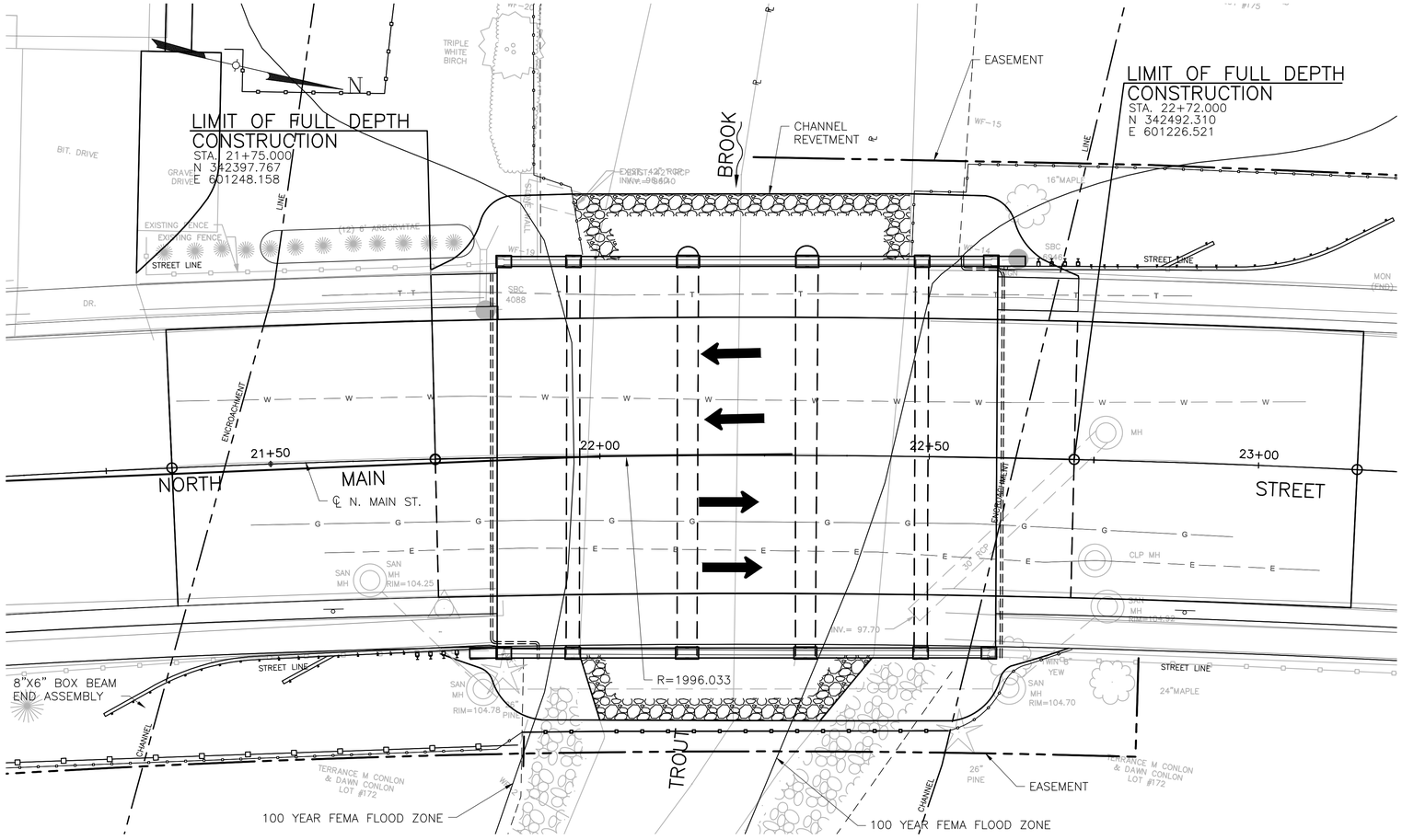
SEDIMENTATION & EROSION CONTROL DETAILS

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH TROUT BROOK
WEST HARTFORD, CONNECTICUT

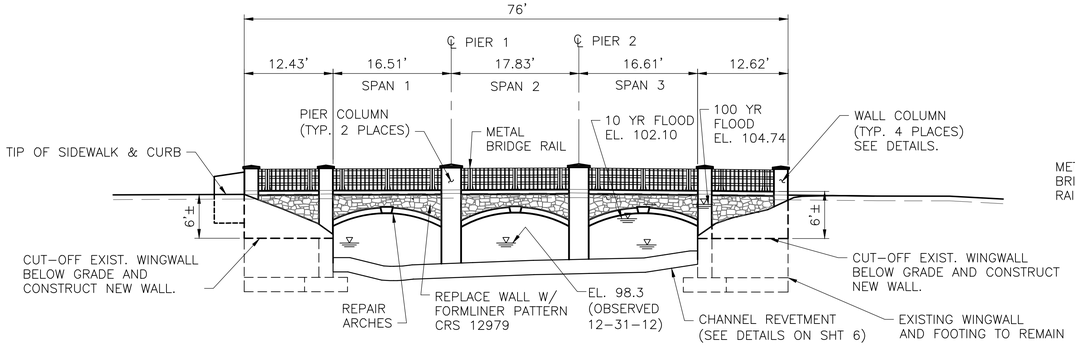
Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	7	
Scale N.T.S.			



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

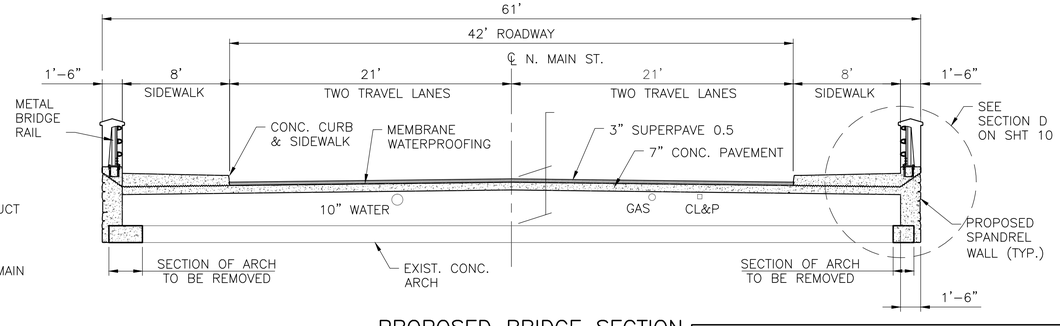
PLAN

SCALE: 1" = 10'-0"



PROPOSED DOWNSTREAM ELEVATION

SCALE: 1"=10'



PROPOSED BRIDGE SECTION

SCALE: 3/16" = 1'-0"

GENERAL NOTES:

SPECIFICATIONS:

CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 816 (2004), SUPPLEMENTAL SPECIFICATIONS UP TO AND INCLUDING JANUARY 2014 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS:

STANDARD DESIGN SPECIFICATIONS FOR HIGHWAY BRIDGES (AASHTO OCTOBER 2007– 17TH EDITION), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003).

ALLOWABLE DESIGN STRESSES:

CLASS "F" CONCRETE.....BASED ON f'c = 4000 PSI (MIN).
REINFORCEMENT (ASTM A615 GRADE 60).....BASED ON fy = 60,000 PSI.

LIVE LOAD:

HS-20

FUTURE PAVING ALLOWANCE:

NONE.

SUPERPAVE OVERLAY:

THIS SHALL CONSIST OF TWO LIFTS OF SUPERPAVE 0.5 (1½" THICK).

DIMENSIONS:

ALL DIMENSIONS SHOWN ON THE PLANS ARE IN INCHES EXCEPT IF NOTED OTHERWISE.
ALL ELEVATIONS ARE GIVEN IN FEET. WHEN ELEVATIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

EXISTING DIMENSIONS:

DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

CLASS "F" CONCRETE:

CLASS "F" CONCRETE SHALL BE USED FOR THE ARCH, SPANDREL WALL, END BLOCKS & PARAPET.
(FOR THE SUBSTRUCTURE CONCRETE PATCHING REFER TO DRAWINGS NO. 16 AND 17.)

EXPOSED EDGES:

EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1/2" x 1 /2" UNLESS NOTED OTHERWISE.

CONCRETE COVER:

ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT:

ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60 AND EPOXY COATED.

PREFORMED EXPANSION JOINT FILLER:

THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE ITEM "CLASS 'F' CONCRETE".

CONSTRUCTION JOINTS:

CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

ELEVATIONS:

ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON NGVD 29 DATUM.

ELEVATIONS:

THIS PLAN IS BASED ON FIELD SURVEY BY TECTONIC ENGINEERING AND SURVEYING CONSULTANTS P.C. COMPLETED ON 12/31/12

UTILITIES:

BURIED UTILITIES INCLUDING BUT NOT LIMITED TO SEWER, WATER, GAS AND COMMUNICATIONS ARE WITHIN WORK LIMIT. THEY WILL INTERFERE WITH OPERATIONS AND SHALL BE PROTECTED FROM DAMAGE.

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
○ For Comment		
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○ For Bid		
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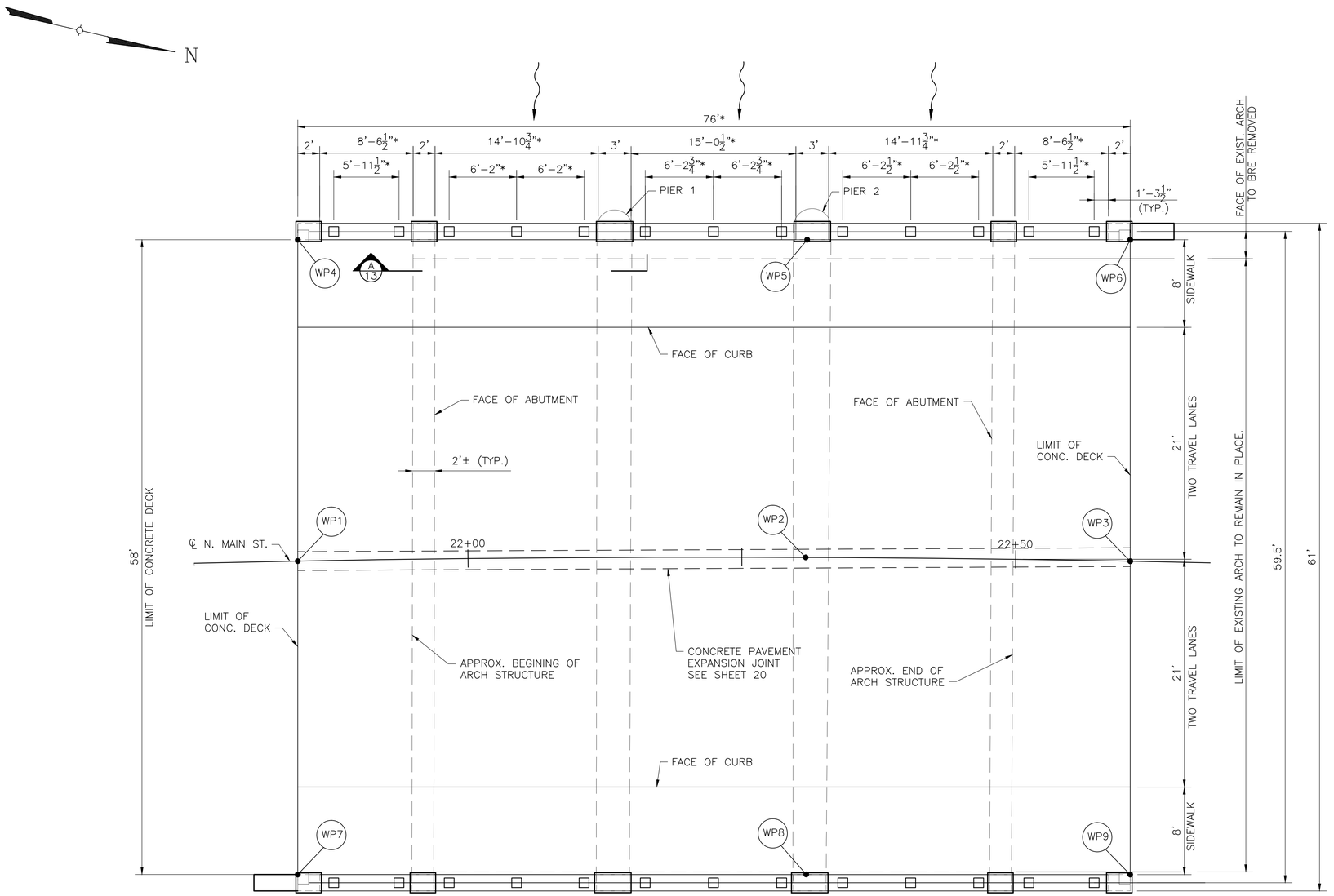
GENERAL PLAN

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	8	0
Scale: AS SHOWN			



DECK PLAN

SCALE: 3/16" = 1'–0"

* NOTE:
ALL DIMENSIONS MAY VARY. CONTRACTOR SHALL FIELD VERIFY ACTUAL DIMENSIONS OF THE EXISTING STRUCTURE.

WORKING POINTS

WORK POINT	NORTHING COORDINATE	EASTING COORDINATE	ELEVATION	STATION
WP 1	342406.858	601245.773	105.074	21+84.400
WP 2	342452.047	601235.101	105.499	22+30.831
WP 3	342480.790	601228.887	105.218	22+60.239
WP 4	342400.381	601217.435		
WP 5	342445.763	601207.041		22+30.831
WP 6	342474.514	6012200.627		
WP 7	342413.305	601273.977		
WP 8	342458.437	601263.640		
WP 9	342487.053	601257.086		22+30.831

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
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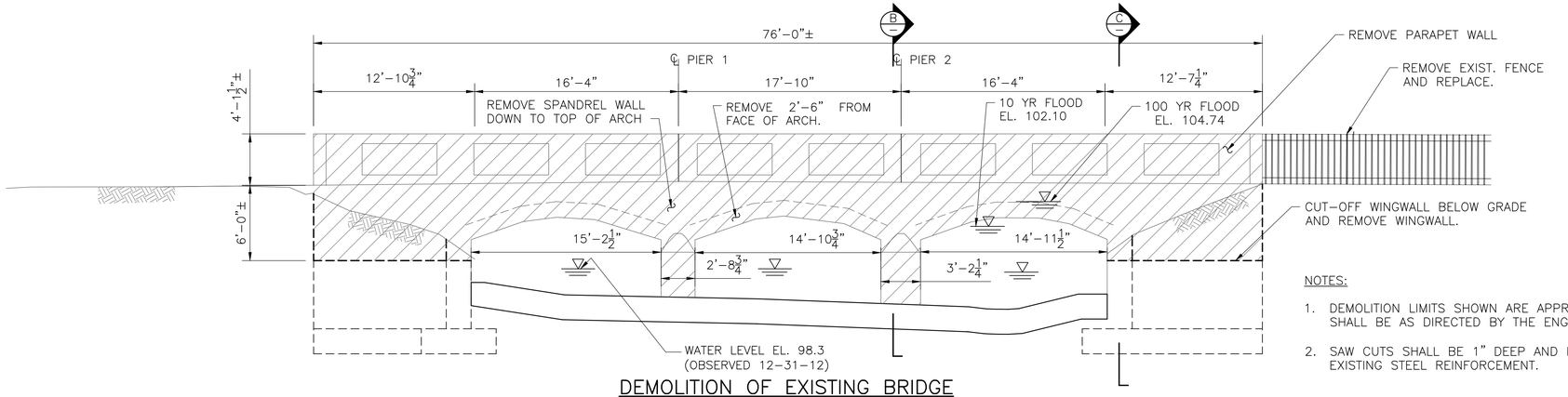
DECK PLAN AND TYPICAL SECTIONS

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	9	0

Scale: AS SHOWN

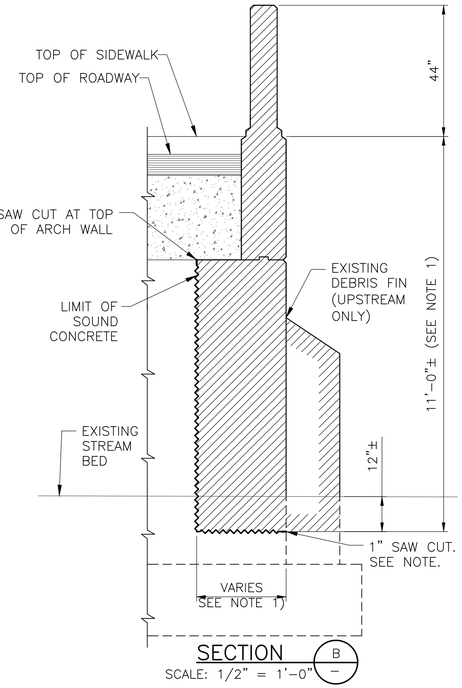


DEMOLITION OF EXISTING BRIDGE TYPICAL ELEVATION

SCALE: 3/16" = 1'-0"

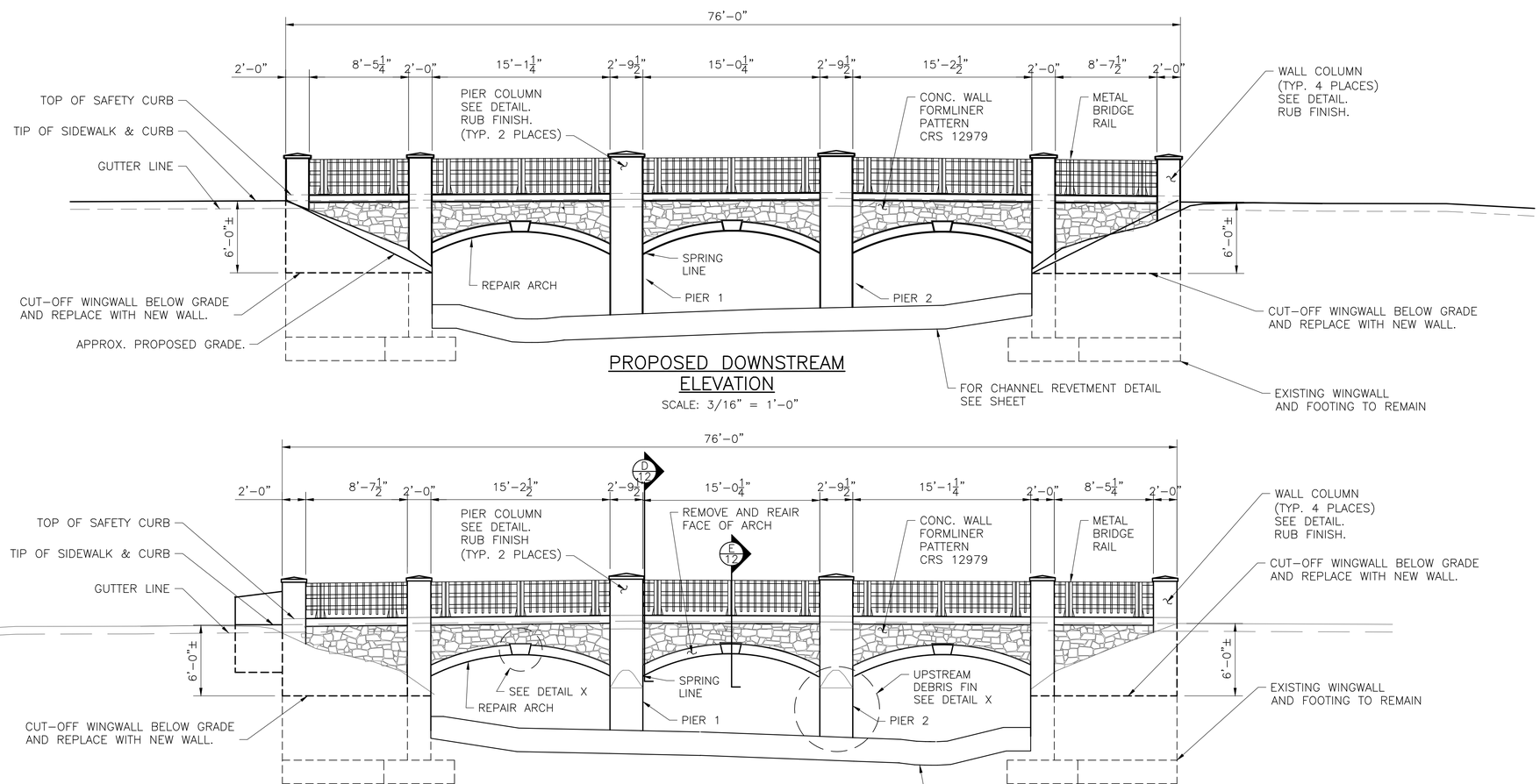
NOTES:

1. DEMOLITION LIMITS SHOWN ARE APPROXIMATE. FINAL LIMIT SHALL BE AS DIRECTED BY THE ENGINEER.
2. SAW CUTS SHALL BE 1" DEEP AND NOT DAMAGE THE EXISTING STEEL REINFORCEMENT.



SECTION B

SCALE: 1/2" = 1'-0"

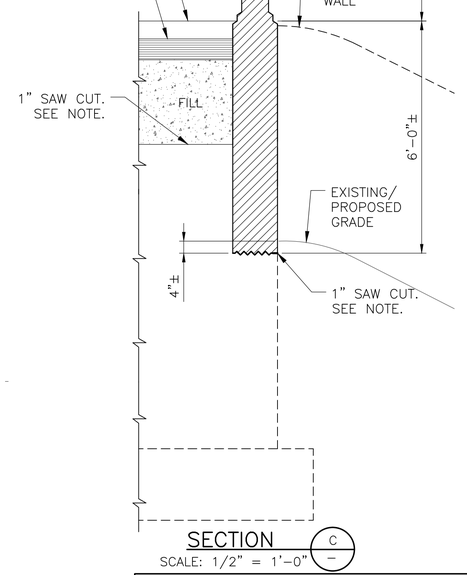


PROPOSED DOWNSTREAM ELEVATION

SCALE: 3/16" = 1'-0"

PROPOSED UPSTREAM ELEVATION

SCALE: 3/16" = 1'-0"



SECTION C

SCALE: 1/2" = 1'-0"

0 1 2 3

ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

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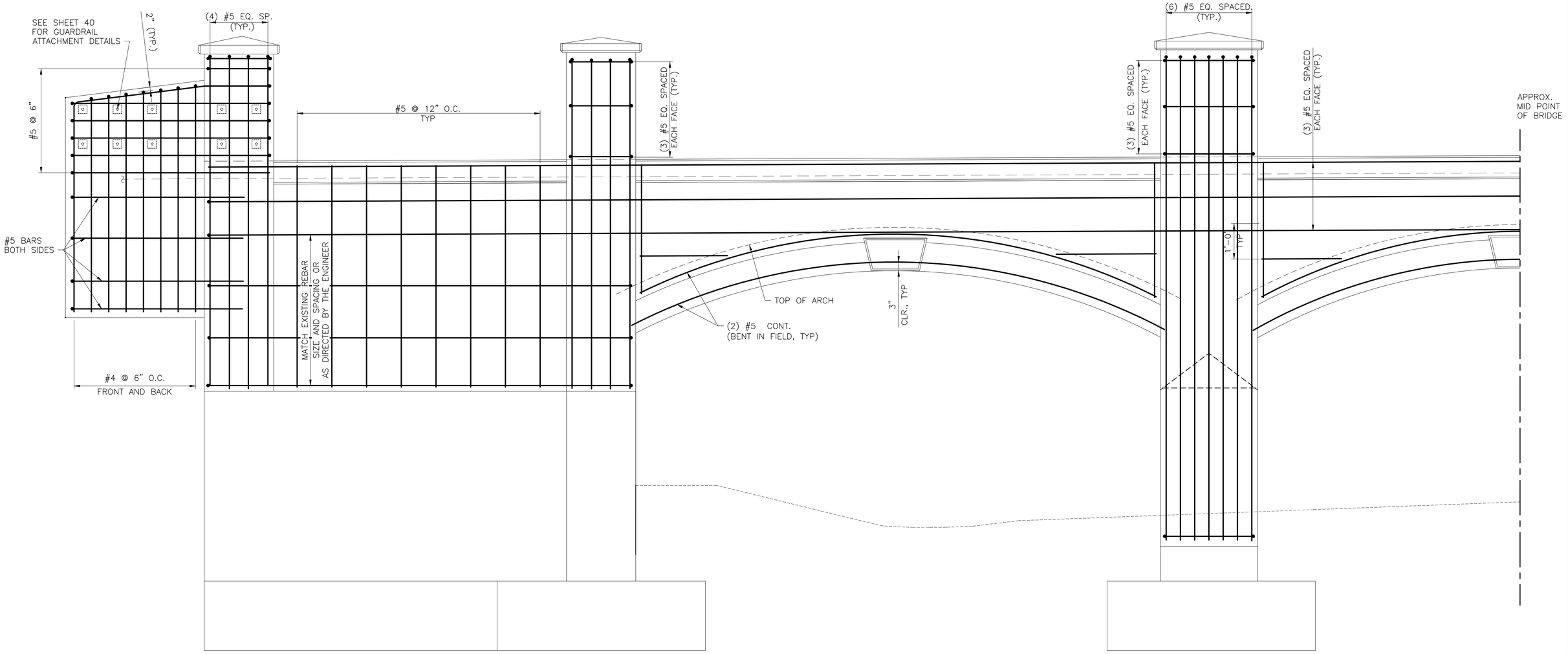
BRIDGE ELEVATIONS

REHABILITATION OF BRIDGE NO. 03651 NORTH MAIN STREET OVER WEST BRANCH OF TROUT BROOK WEST HARTFORD, CONNECTICUT

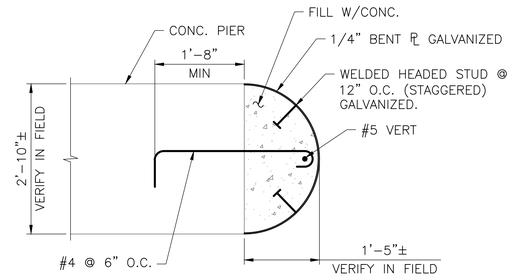
Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	10	0

Scale: AS SHOWN



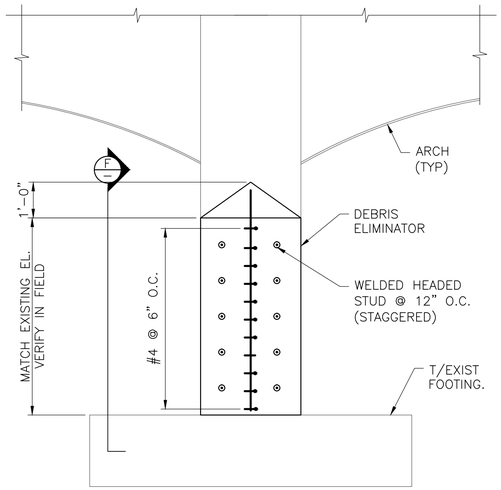
PARTIAL BRIDGE REINFORCEMENT ELEVATION

SCALE: 3/4" = 1'-0"



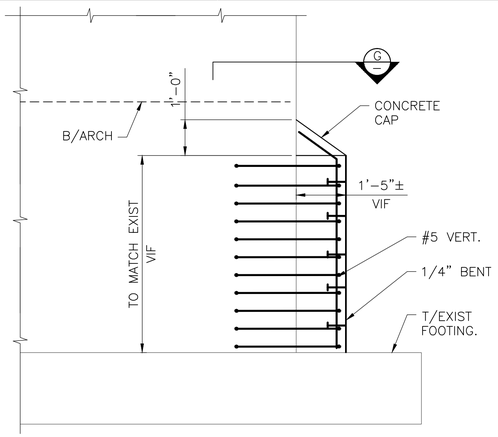
G/— DEBRIS ELIMINATOR SECTION

SCALE: 3/4" = 1'-0"



10/— DEBRIS ELIMINATOR DETAIL

SCALE: 1/2" = 1'-0"



F/— DEBRIS ELIMINATOR SECTION

SCALE: 1/2" = 1'-0"

0 1 2 3

ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: P.I.O.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
○ For Comment		
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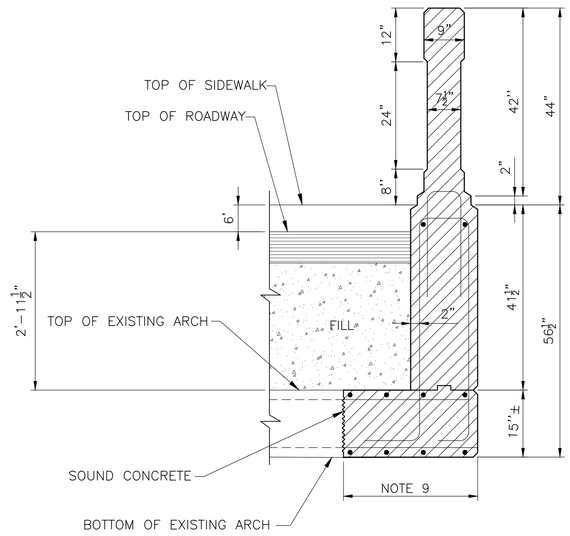
CONCRETE REINF. AND DEBRIS ELIMINATOR

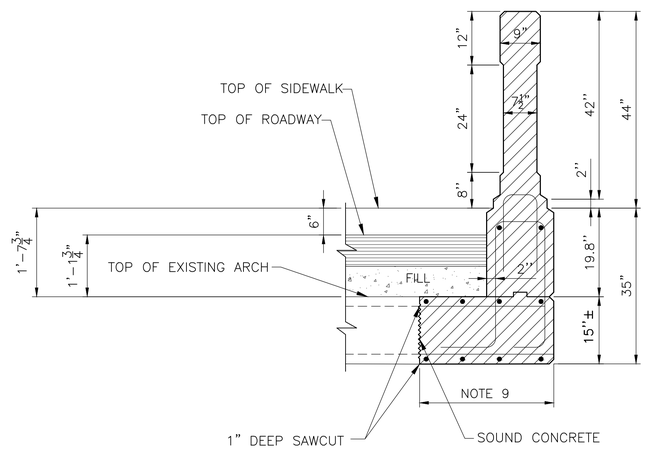
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	11	0
Scale: AS SHOWN			



EXISTING PARAPET AT SPRINGLINE

SCALE: 3/4" = 1'–0"

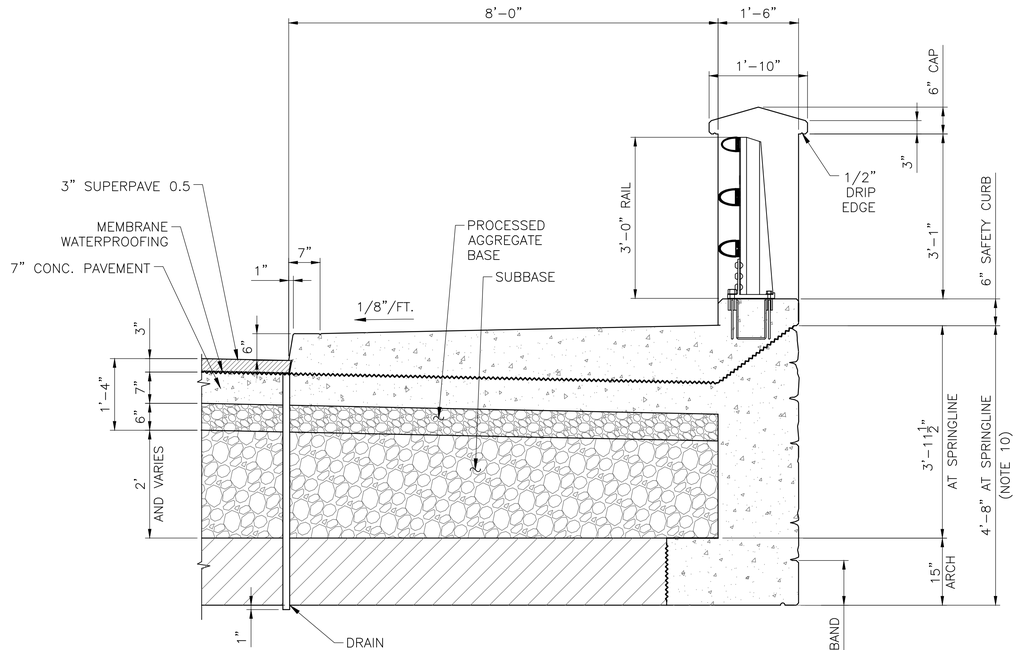


EXISTING PARAPET AT CROWN

SCALE: 3/4" = 1'–0"

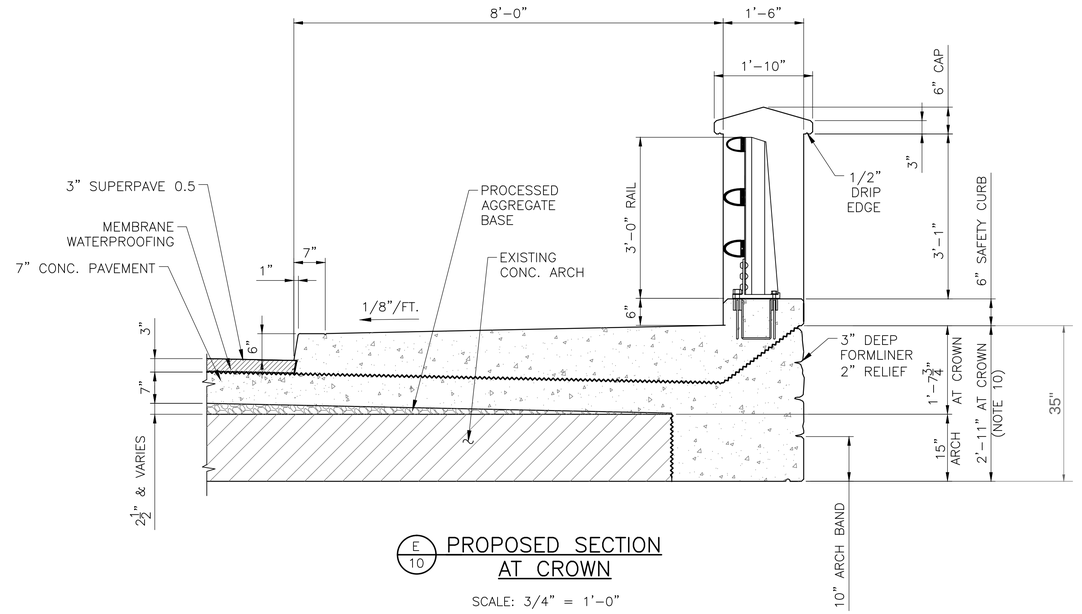
NOTES:

1. REMOVE THE EXISTING BITMINOUS SURFACE, SIDEWALKS AND THE BACKFILL, TO EXPOSE THE TOP OF ARCH. THE REMOVAL OF THESE ITEMS SHALL BE PAID FOR UNDER THE ITEM "STRUCTURE EXCAVATION– EARTH, EXCLUDING COFFERDAM & DEWATERING".
2. REMOVE THE PARAPETS FROM THE UPSTREAM AND DOWNSTREAM FACES AND EXPOSED PORTION OF THE UPSTREAM SPANDREL WALL.
3. REMOVE PORTION OF THE EXISTING ARCH TO SOUND CONCRETE, AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. DO NOT CUT OR DAMAGE THE EXISTING ARCH REINFORCEMENT. DAMAGED REINFORCEMENT SHALL BE REPLACED, AT THE CONTRACTOR'S EXPENSE, USING DRILLED AND GROUTED DOWELS, AS DIRECTED BY THE ENGINEER.
4. REMOVAL OF THE ABOVE CONCRETE SHALL BE PAID FOR UNDER THE ITEM "REMOVAL OF EXISTING MASONRY".
5. SIZE AND LOCATION OF EXISTING REINFORCING IS NOT KNOWN.
6. NO DEBRIS SHALL BE ALLOWED TO FALL IN THE BROOK BELOW. THE CONTRACTOR SHALL SUBMIT, FOR REVIEW, A PLAN SHOWING THE METHOD OF DEBRIS CONTAINMENT DURING THE REMOVAL OF EXISTING CONCRETE.
7. THE ABOVE WORK SHALL BE PERFORMED USING A THREE STAGE CONSTRUCTION AS SHOWN ON THE PLANS.
8. CONCRETE SAWCUT WILL BE INCLUDED UNDER THE REPAIR ITEM SPECIFIC TO THE SAWCUT.
9. DIMENSIONS MAY VARY. CONTRACTOR TO REMOVE CONCRETE UNTIL SOUND CONCRETE IS REACHED AS DIRECTED BY THE ENGINEER.
10. CONSTRUCTION JOINT SHALL BE MINIMIZED. THE CONTRACTOR SHALL ERECT THE OUTSIDE FORMS TO AT LEAST THE ELEVATION OF TOP OF SAFETY CURB. THE FORMS SHALL HAVE ALL LINERS INSTALLED AND SECURED PRIOR TO ANY CONCRETE POURS.



D/10 PROPOSED SECTION AT SPRINGLINE

SCALE: 3/4" = 1'–0"



E/10 PROPOSED SECTION AT CROWN

SCALE: 3/4" = 1'–0"

NOTE:
REINFORCING STEEL NOT SHOWN FOR CLARITY.
SEE SHEET 21 FOR DETAILS.

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Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: P.I.O.	Drawn by: K.R.F.	Checked by: J.A.S.

Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

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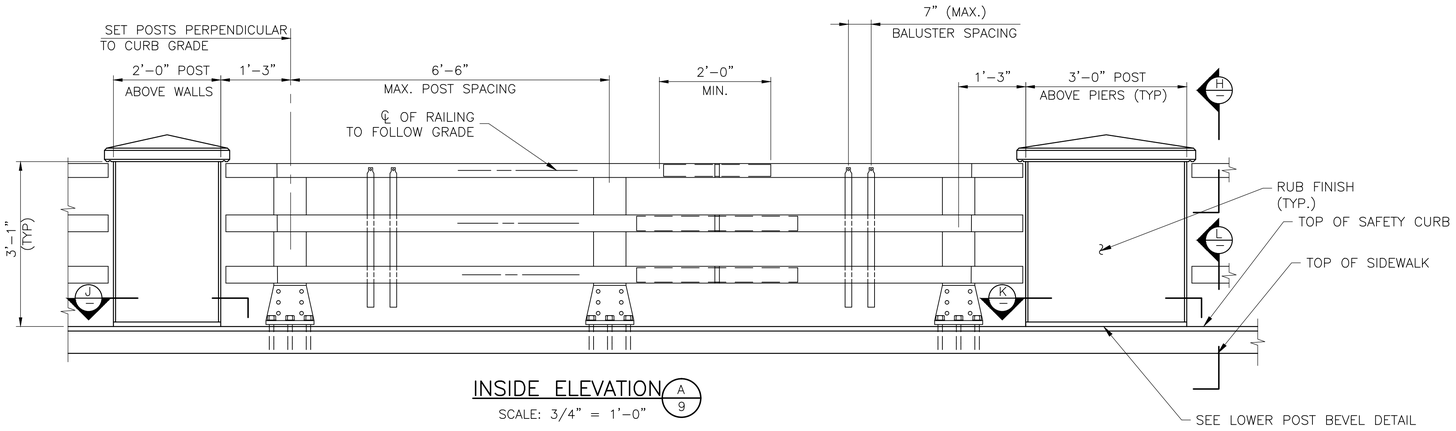
PARAPET DETAILS

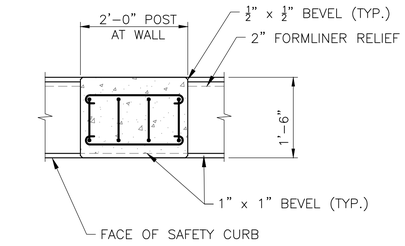
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3–02–15	6550.01	12	0
Scale: AS SHOWN			



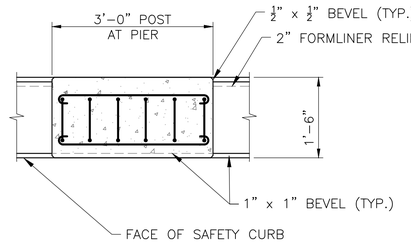
INSIDE ELEVATION A/9

SCALE: 3/4" = 1'-0"



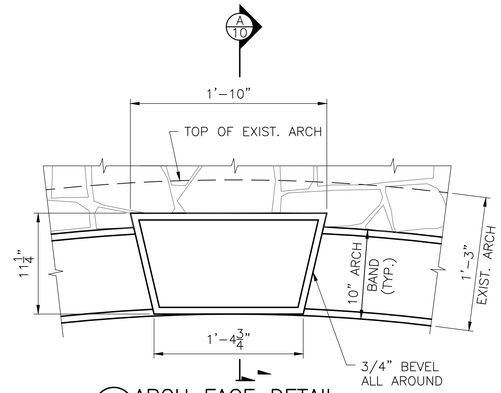
TYPICAL WALL POST SECTION J/–

SCALE: 3/4" = 1'-0"



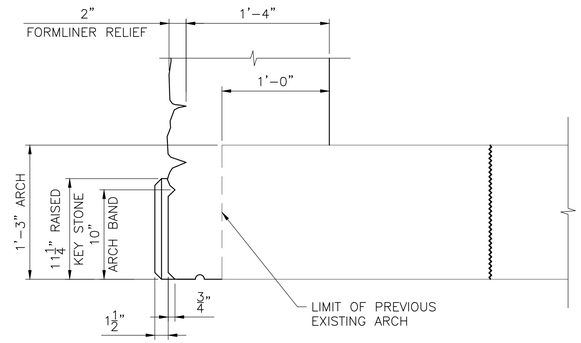
TYPICAL PIER POST SECTION K/–

SCALE: 3/4" = 1'-0"



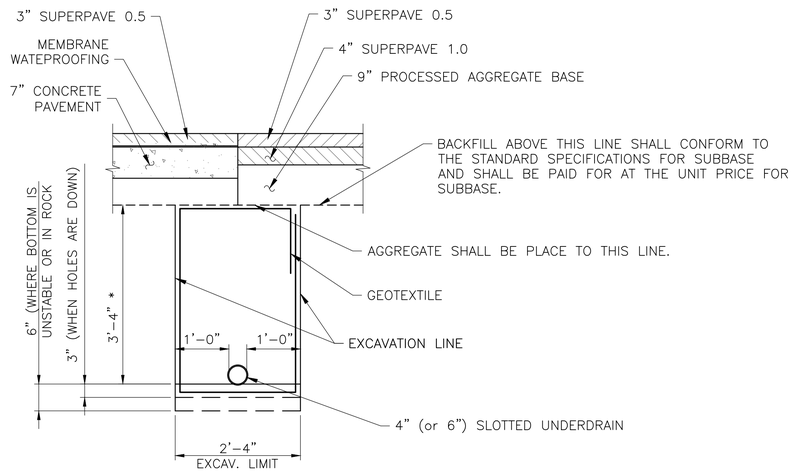
12/– ARCH FACE DETAIL

SCALE: 1 1/2" = 1'-0"



M/– SECTION AT KEYSONE OF ARCH

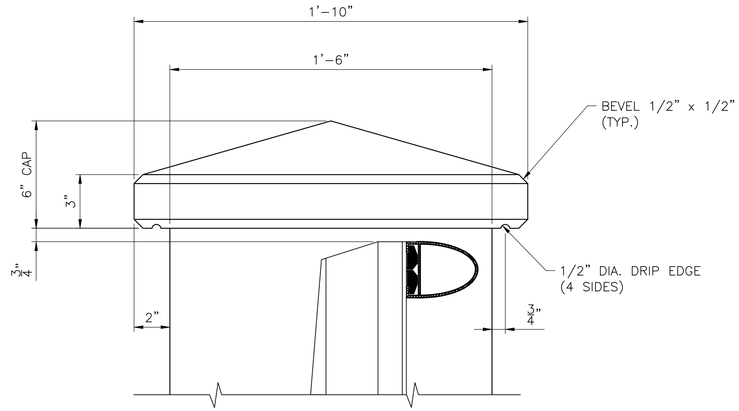
SCALE: 1 1/2" = 1'-0"



UNDERDRAIN DETAIL

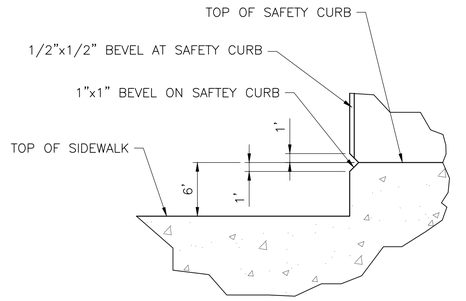
SCALE: 3/4" = 1'-0"

* DEPTH MAY VARY FOR NECESSARY OUTLET GRADE. PERFORATIONS MAY BE PLACED UP FOR PIPES THAT CARRY ONLY SURFACE WAER UNLESS OTHERWISED DIRECTED.



H/10 TYPICAL SECTION AT CAP

SCALE: 3/16" = 1'-0"



L/– SECTION AT LOWER POST BEVEL

SCALE: 3/4" = 1'-0"

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Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: P.I.O.	Drawn by: K.R.F.	Checked by: J.A.S.	
Purpose	Released by		Date
○ For Comment			
○ For Approval			
○ For Bid			
○ For Construction			

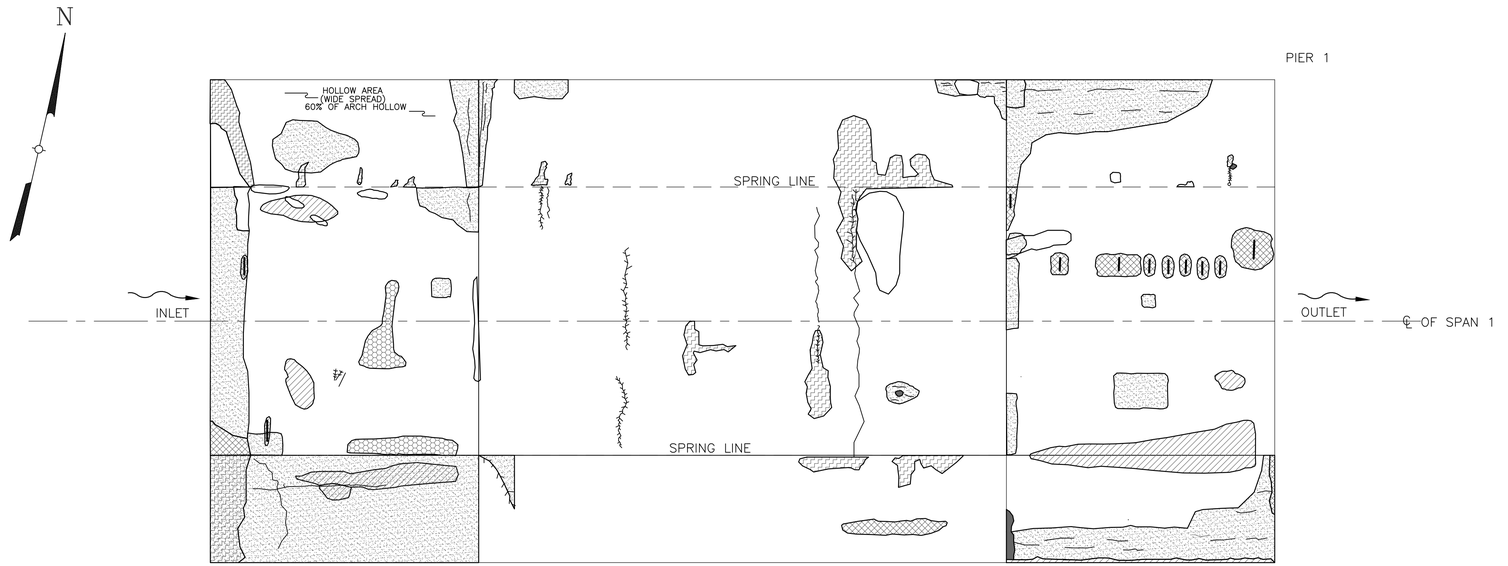
STATE OF CONNECTICUT · JEFFREY A. SOSKA · 21933 · LICENSED PROFESSIONAL ENGINEER

MISCELLANEOUS DETAILS

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	13	0

Scale AS SHOWN

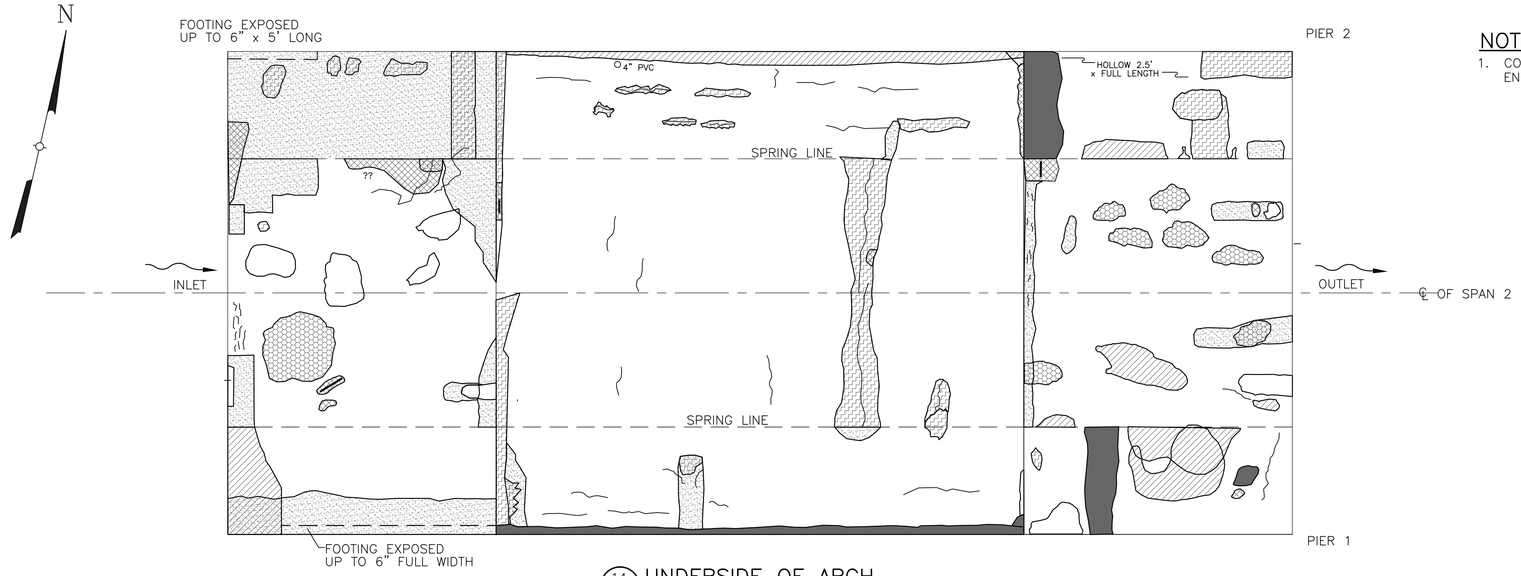


13 — UNDERSIDE OF ARCH
SPAN NO. 1

SCALE: 1/4" = 1'-0"

LEGEND

SPALL AREA	PATCH AREA	SCALING	
HOLLOW AREA	EFFLORESCENCE	RUST	
FROSTING	EXPOSED REBAR	HONEYCOMB AREA	



14 — UNDERSIDE OF ARCH
SPAN NO. 2

SCALE: 1/4" = 1'-0"

NOTES

1. CONTRACTOR SHALL REPAIR AS SHOWN OR AS DIRECTED BY THE ENGINEER.

0 1 2 3

ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: K.R.F.	Checked by: J.A.S.	
Purpose	Released by		Date
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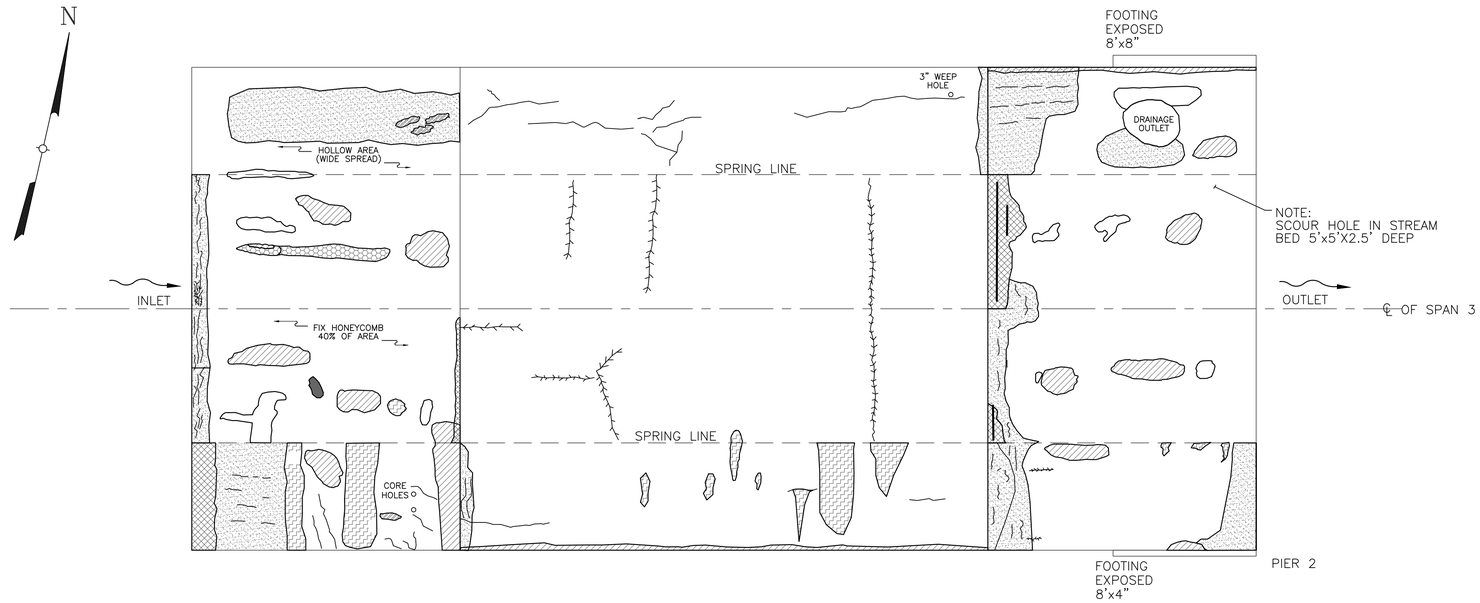
ABUTMENT & UNDERSIDE OF ARCH REPAIRS-1

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	14	0

Scale: AS SHOWN



15 — UNDERSIDE OF ARCH
SPAN NO. 3

SCALE: 1/4" = 1'-0"

LEGEND

- SPALL AREA
- PATCH AREA
- SCALING
- HOLLOW AREA
- EFFLORESCENCE
- RUST
- FROSTING
- EXPOSED REBAR
- HONEYCOMB AREA

0 1 2 3

ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H. | Drawn by: K.R.F. | Checked by: J.A.S.

Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

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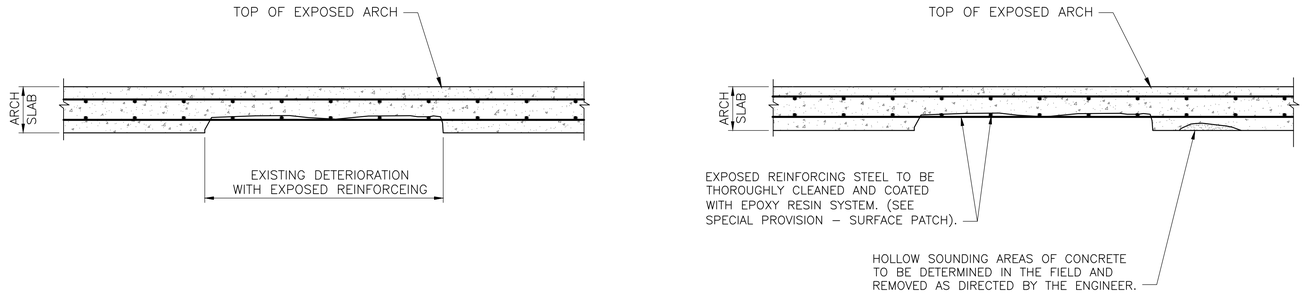
ABUTMENT & UNDERSIDE OF ARCH REPAIRS-2

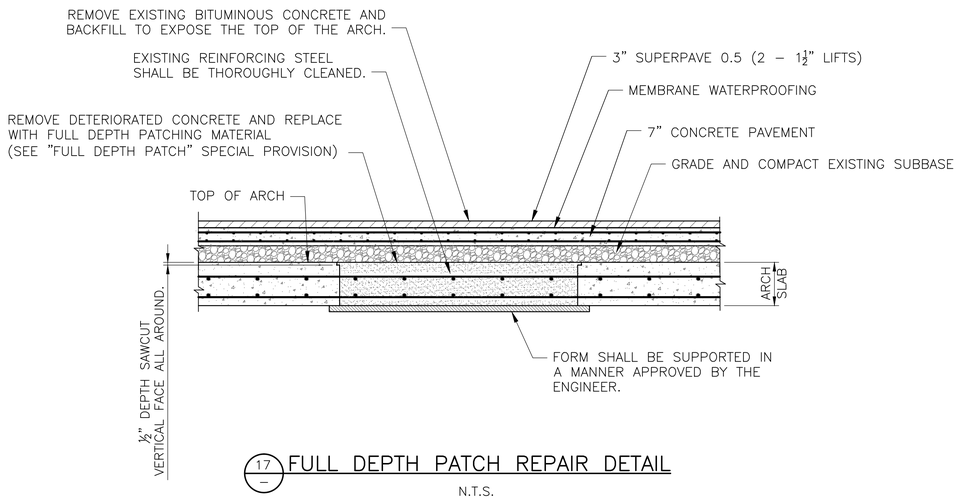
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	15	0
Scale: AS SHOWN			



16 – UNDERSIDE OF ARCH REPAIRS (SURFACE PATCH)

N.T.S.



17 – FULL DEPTH PATCH REPAIR DETAIL

N.T.S.

UNDERSIDE OF ARCH REPAIR NOTES:

1. EPOXY COATING THE UNDERSIDE OF THE ARCH REINFORCEMENT SHALL BE PERFORMED IN ACCORDANCE WITH DETAILS SHOWN ON THIS SHEET AND THE SPECIAL PROVISIONS. THIS WORK SHALL BE PAID UNDER THE ITEM "SURFACE PATCH" (SEE SPECIAL PROVISIONS).
2. All WORK SHALL BE CONTAINED BY A TEMPORARY DEBRIS SHIELD. NO DEBRIS SHALL BE ALLOWED TO FALL INTO THE BROOK. THE CONTRACTOR SHALL SUBMIT FOR REVIEW THE METHOD HE INTENDS TO USE AS DEBRIS CONTAINMENT. THE COST OF THIS SHALL BE INCLUDED IN THE GENERAL COST OF CONSTRUCTION.
3. THE EXISTING UNDERSIDE SHALL BE SOUNDED FOR HOLLOW AREAS OF CONCRETE TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO THE ENGINEER FOR DELINEATION AND INSPECTION OF THE DECK UNDERSIDE, AND THE REPAIR WORK. THE COST OF PROVIDING ACCESS FOR THE INSPECTION SHALL BE INCLUDED IN THE COST OF THE ITEM "SURFACE PATCH",
4. ALL EXPOSED REINFORCING STEEL SHALL BE THOROUGHLY CLEANED TO REMOVE ANY DEBRIS OR RESIDUE BEFORE APPLICATION OF EPOXY RESIN COATING (SEE SPECIAL PROVISION),
5. ANY EXPOSED REINFORCING STEEL IN THE AREAS OF POP–OUTS CAUSED BY THE REMOVAL OF DETERIORATED CONCRETE SHALL BE CLEANED AND COATED WITH EPOXY RESIN COATING.
6. THE UNDERSIDE OF ARCH DETERIORATION AND REPAIR ESTIMATES ARE BASED ON LIMITED FIELD OBSERVATIONS. THE EXACT LOCATION AND LIMITS OF EXPOSED REINFORCEMENT AND HOLLOW AREAS OF CONCRETE SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION (SEE SPECIAL PROVISION).
7. THE CONTRACTOR SHALL NOT PERFORM ANY REPAIR WORK WITHOUT PRIOR APPROVAL FROM THE ENGINEER. THE REMOVAL OF DETERIORATED CONCRETE SHALL PROCEED AS DIRECTED BY THE ENGINEER.
8. IF THE REMOVAL OF DETERIORATED CONCRETE BECOMES EXCESSIVE, THE REMOVAL WORK SHALL BE STOPPED AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
9. IF CONCRETE REMOVAL EXTENDS GREATER THAN 3 INCHES IN DEPTH OR IF THE REMOVAL EXPOSES THE FULL CIRCUMFERENCE OF THE REINFORCING STEEL BAR FOR A LENGTH EXCEEDING 12 INCHES, THE AREA SHALL BE REPAIRED BY "FULL DEPTH PATCHING".

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: T.K.	Checked by: J.A.S.	
Purpose	Released by		Date
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○ For Approval			
○ For Bid			
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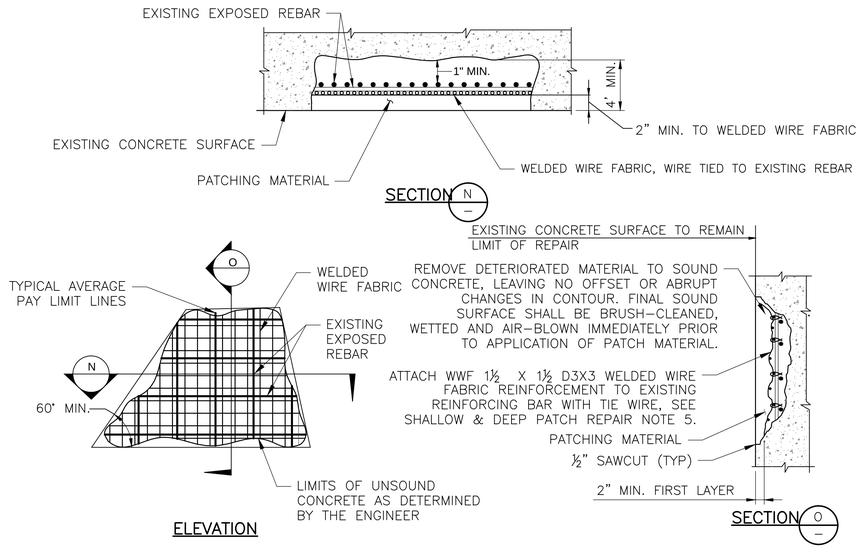
ARCH REPAIR DETAILS

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3–02–15	6550.01	16	0
Scale: AS SHOWN			



18 DEEP PATCH REPAIR DETAIL – WITHOUT BUILD OUT

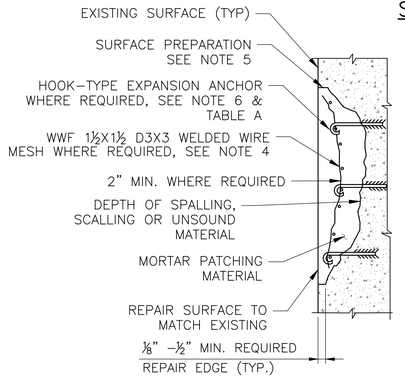
N.T.S.

DEEP PATCH REPAIR PROCEDURE:

1. DEEP PATCH REPAIR DETAIL APPLIES TO DETERIORATED AREAS OF REINFORCED CONCRETE WHERE REINFORCING IS EXPOSED.
2. REMOVE DETERIORATED MATERIAL TO SOUND CONCRETE LEAVING NO OFFSET OR ABRUPT CHANGES IN CONTOUR.
3. CLEAN EXISTING REINFORCING STEEL AND CONCRETE (NEWLY EXPOSED), SEE SPECIFICATIONS. MISSING OR DETERIORATED REINFORCING STEEL SHALL BE REPLACED AND SPLICED AS SHOWN IN DETAIL OR AS DIRECTED BY THE ENGINEER. COST OF SPLICING TO BE PAID UNDER THE COST FOR PATCHING MATERIAL.
4. INSTALL WELDED WIRE FABRIC AND APPLY ZINC RICH PRIMER TO EXISTING AND NEW REINFORCING STEEL IMMEDIATELY PRIOR TO PLACING PATCHING CONCRETE. COST OF WELDED WIRE FABRIC AND PRIMER TO BE PAID UNDER THE COST FOR PATCHING MATERIAL.
5. FORM AND PATCH SURFACE.
6. A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN PLACING OF CONCRETE AND START OF NEXT ADJACENT PATCH.
7. ALL NEW EXPOSED CONCRETE SURFACES WITHIN AREA TO BE REPAIRED SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH.

SHALLOW AND DEEP PATCH REPAIR NOTES:

1. ALL WORK SHOWN ON THIS DRAWING SHALL BE PERFORMED WHERE DIRECTED BY THE ENGINEER.
2. SURFACE PREPARATION, PROPORTIONING AND MIXING OF MATERIALS, APPLICATION OF MATERIALS AND REPAIR PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. NEW CONCRETE PATCHES SHALL MATCH SHAPE OF EXISTING CONCRETE SURFACES. COLOR OF NEW PATCH CONCRETE SHALL MATCH COLOR OF THE ADJACENT SURFACES AS CLOSELY AS POSSIBLE.
4. EXPOSED REINFORCING BARS SHALL BE BLAST CLEANED AND COATED WITH A ZINC RICH PRIMER THAT CONFORMS TO FEDERAL· SPECIFICATION TT-P-641, TYPE 1, BEFORE APPLYING THE PATCHING MATERIAL. COST OF PRIMER SHALL BE INCLUDED IN THE COST OF THE PATCHING MATERIAL ITEM.
5. SPLICED REINFORCING BARS SHALL BE COATED WITH A ZINC RICH PRIMER THAT CONFORMS TO FEDERAL SPECIFICATION TT-P-641, TYPE 1, BEFORE APPLYING PATCHING MATERIAL. COST OF PRIMER SHALL BE INCLUDED IN THE COST OF THE PATCHING MATERIAL.
6. THE REMOVAL OF DETERIORATED CONCRETE SHALL PROCEED AS DIRECTED BY THE ENGINEER. IF THE REMOVAL OF DETERIORATED CONCRETE BECOMES EXCESSIVE, THE REMOVAL WORK SHALL BE STOPPED AT THE LOCATION AND THE ENGINEER NOTIFIED IMMEDIATELY. COST OF REMOVAL OF DETERIORATED CONCRETE AND SURFACE PREPARATION OF THE REPAIR AREA SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEM OF THE PATCHING MATERIAL.
7. THE CONTRACTOR SHALL NOT REMOVE CONCRETE EXCEPT IN THE PRESENCE OF THE ENGINEER OR HIS APPOINTED REPRESENTATIVE. IF THE AREA REMOVED EXCEEDS THE AREA SHOWN ON THE PLANS BY 25% OR IF THE REMOVAL DEPTH EXTENDS MORE THAN 1-1/2" BEHIND THE MAIN REINFORCING BARS, THE CCONTRACTOR SHALL CEASE REMOVAL OPERATIONS AND NOTIFY THE ENGINEER IMMEDIATELY. THE ENGINEER SHALL DETERMINE IF THE REMOVAL OPERATIONS REDUCE THE STRUCTURAL CAPACITY OF THE ELEMENT.
8. AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UNLESS OTHERWISE NOTED OR AS ORDERED BY ENGINEER.
9. REPAIR DETAILS APPLY TO SPALLED, SCALED, AND HOLLOW AREAS IN ABUTMENTS AND PIERS WHERE REQUIRED AND NOTED ON DRAWINGS, AND AS ORDERED BY ENGINEER.



SHALLOW PATCH PROCEDURE:

1. SHALLOW PATCH REPAIR DETAIL APPLIES TO DETERIORATED AREAS OF UNREINFORCED CONCRETE OR REPAIR AREAS WHERE NO REINFORCING IS EXPOSED.
2. REPAIR DEPTH SHALL BE 1/8" (MIN.) OR GREATER. REPAIR DEPTHS LESS THAN 1/8" NEED NOT BE REPAIRED.
3. FOR AREAS WHERE THE CONCRETE REPAIR EXCEED 4" IN DEPTH, A SINGLE LAYER OF WIRE MESH SHALL BE USED TO REINFORCE EACH 2" THICKNESS OF PATCHING MATERIAL. THE COST OF WELDED WIRE FABRIC SHALL BE INCLUDED IN THE COST OF PATCHING MATERIAL.
4. THE PERIMETER OF EACH DETERIORATED AREA SHALL BE SQUARED-OFF BY CHISELING OR SAWCUTTING.
5. SURFACE PREPARATION:

   REMOVE LOOSE AND DETERIORATED CONCRETE, INCLUDING DIRT, OIL, GREASE AND ALL BOND-INHIBITING MATERIALS FROM SURFACE, LEAVING NO OFFSET OR ABRUPT CHANGES IN CONTOUR. SURFACE PREPARATION SHALL BE DONE BY SCABBLER, CHISELING, WIRE BRUSHING OR OTHER APPROPRIATE MECHANICAL MEANS.

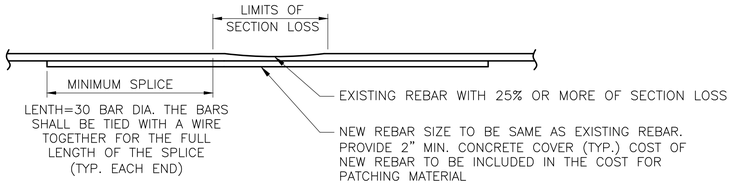
   ROUGHEN CONTACT SURFACE WITH A MINIMUM PROFILE OF APPROXIMATELY 1/16" FOR BONDING WITH PATCHING MATERIAL.

   SATURATE WITH CLEAN WATER PRIOR TO APPLYING MORTAR. SUBSTRATE SHOULD BE SATURATED SURFACE DRY (SSD) WITH NO STANDING WATER DURING APPLICATION OF PATCHING MORTAR.
6. HOOK-TYPE EXPANSION ANCHOR BOLTS SHALL BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 50, TYPE 1. COST OF HOOK-TYPE BOLTS, INCLUDING MATERIAL AND INSTALLATION, SHALL BE INCLUDED IN THE COST OF PATCHING MATERIAL.
7. NEW CONCRETE SHALL MATCH SHAPE AND COLOR OF EXISTING CONCRETE SURFACE AS CLOSELY AS POSSIBLE.

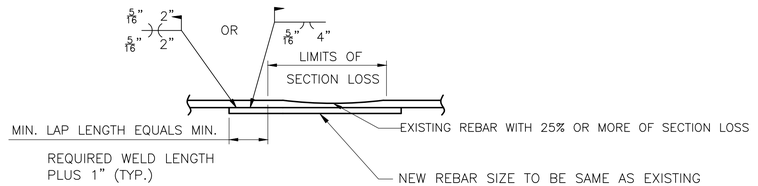
TABLE A	
SIZE AND SPACING OF HOOK-TYPE BOLTS	
THICKNESS OF PATCH MAT'L	SIZE AND SPACING
4"	½" DIA. AT 24" + CTRS.
5"	½" DIA. AT 22" + CTRS.
6"	½" DIA. AT 20" + CTRS.

19 SHALLOW PATCH REPAIR DETAIL

N.T.S.



LAPPED TIED SPLICE BAR



NOTES:

1. THIS DETAIL TO BE USED ONLY IF IT IS VERIFIED THAT EXISTING STEEL IS WELDABLE BASED ON ITS CHEMICAL COMPOSITION.
2. WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.4 STRUCTURAL WLEDING CODE – REINFORCING STEEL.

LAPPED WELDED SPLICE BAR

20 REINFORCEMENT SPLICE DETAIL

N.T.S.

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: T.K.	Checked by: J.A.S.	
Purpose	Released by		Date
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SUBSTRUCTURE REPAIR DETAILS

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

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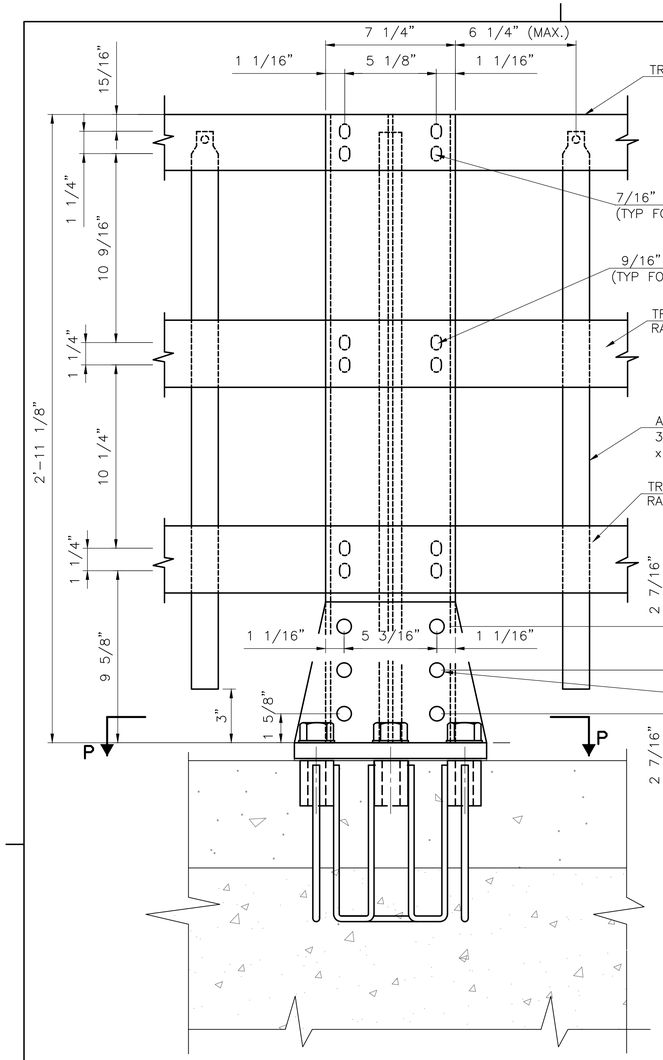
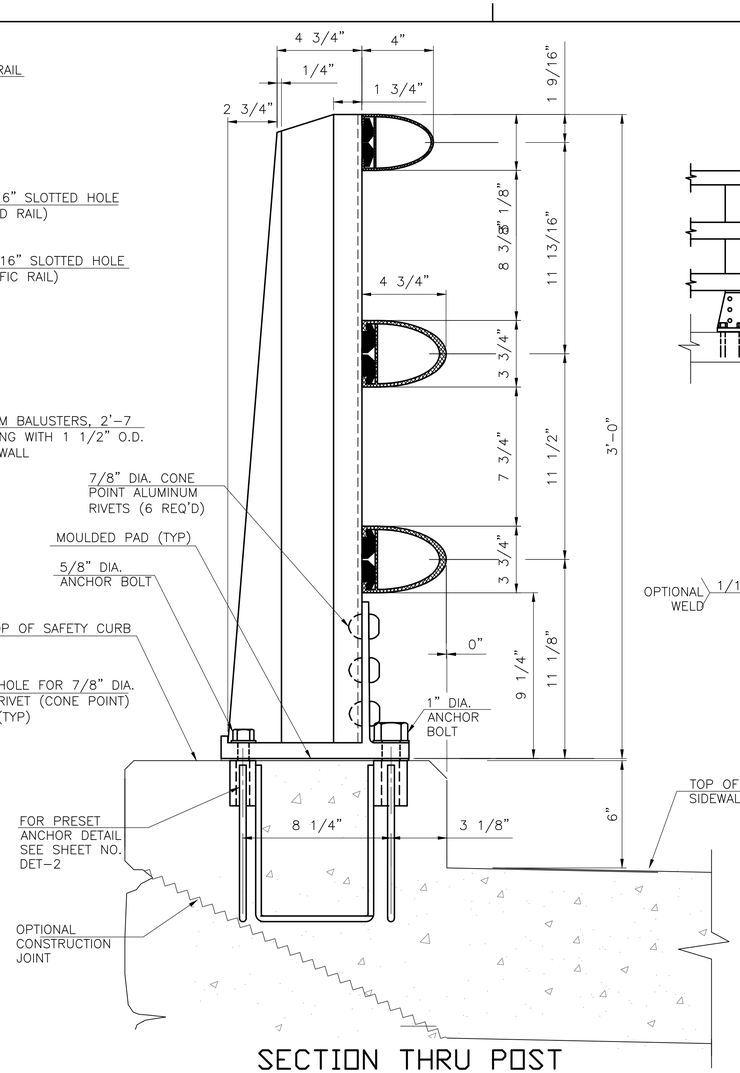
3-02-15	6550.01	17	0
Scale: AS SHOWN			



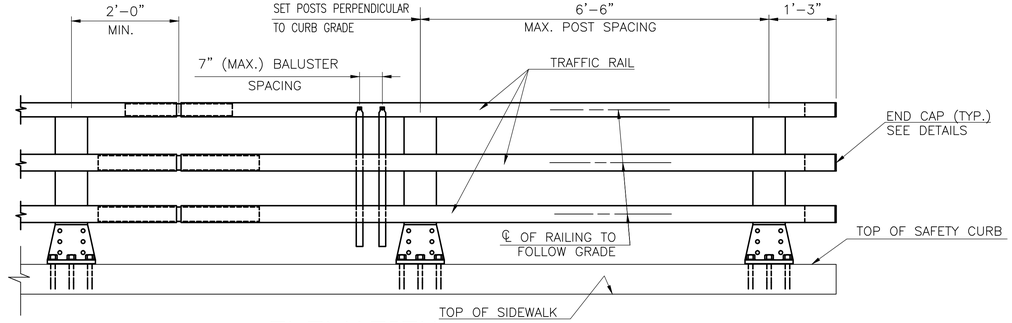
POST ELEVATION

SCALE: 3" = 1'-0"



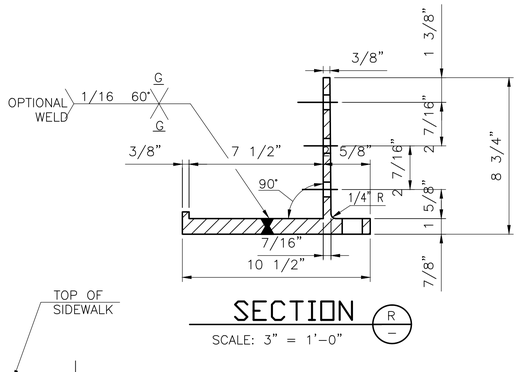
SECTION THRU POST

SCALE: 3" = 1'-0"



ELEVATION

SCALE: 3/4" = 1'-0"



SECTION

SCALE: 3" = 1'-0"

NOTES

ALUMINUM WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY "STRUCTURAL WELDING CODE-ALUMINUM" ANSI/AWS D1.2.

RIVETING SHALL BE DONE IN ACCORDANCE WITH ARTICLE 6.5-RIVETING OF THE AASHTO SPECIFICATIONS FOR ALUMINUM STRUCTURES.

METAL BRIDGE RAIL: THE RAILING POSTS, POST CONNECTION DEVICES, BALUSTERS, SPLICE BARS AND RAILS SHALL BE EXTRUDED ALUMINUM AND CONFORM TO THE REQUIREMENTS OF ASTM B221, ALUMINUM ALLOY 6061-T6 OR 6005-T5.

SOCKET HEAD CAP SCREWS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIRMENTS OF ASTM F837, GROUP 1 (AISI TYPE 304).

BOLTS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM F593, GROUP 1 (AISI TYPE 304). NUTS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM F594, GROUP 1. WASHERS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM A167, TYPES 302 THROUGH 305.

CONE-POINT RIVETS SHALL CONFORM TO ASTM B316, ALUMINUM ALLOY 6061-T6 OR ASTM B221, ALUMINUM ALLOY 6061-T6.

LENGTHS OF RAIL ELEMENTS SHALL BE CONTINUOUS OVER A MINIMUM OF FOUR RAIL POSTS WHEREVER POSSIBLE AND IN NO CASE LESS THAN TWO. WELDING OF TWO OR MORE RAILS TO FORM AN ELEMENT WILL NOT BE ALLOWED. RAIL SPLICES SHALL BE LOCATED IN RAIL PANELS OVER OPEN JOINTS IN PARAPETS. SPLICE BARS SHALL HAVE A SLIDING FIT IN THE RAIL SECTIONS.

ALUMINUM RAILINGS SHALL BE CAREFULLY ADJUSTED PRIOR TO FIXING IN PLACE TO INSURE PROPER MATCHING AT ABUTTING JOINTS AND CORRECT ALIGNMENT AND CURVATURE THROUGHOUT THEIR LENGTH. AFTER INSTALLATION, ALL RAILS AND POSTS SHALL BE FREE OF BURRS, SHARP EDGES AND IRREGULARITIES.

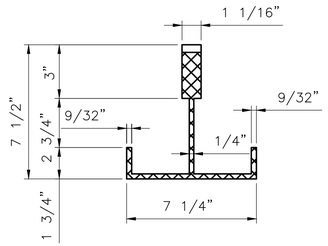
ANCHORAGE: THE ANCHORAGE PLATE SHALL BE FABRICATED FROM STEEL CONFORMING TO ASTM A36. AFTER FABRICATION, THE ANCHORAGE PLATE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.

ANCHOR BOLTS FOR THE ANCHORAGE ASSEMBLY SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM F593, GROUP 1 (AISI TYPE 304). NUTS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM F594, GROUP 1. WASHERS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM A167, TYPES 302 THROUGH 305.

THE ANCHORAGE ASSEMBLIES SHALL BE INSTALLED PERPENDICULAR TO THE GRADE OF THE BRIDGE DECK. THE ANCHORAGE SHALL BE FIRMLY AND ACCURATELY HELD IN POSITION PRIOR TO AND DURING THE PLACING OF CONCRETE.

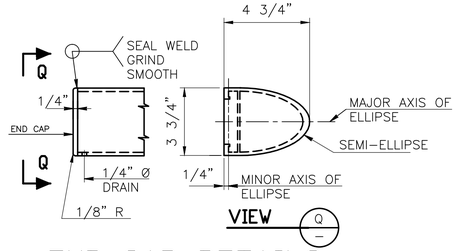
MOLDED PADS: MOLDED PADS SHALL BE MANUFACTURED FROM NEW UNVULCANIZED ELASTOMER AND UNUSED SYNTHETIC FIBERS, WITH A WEIGHT PROPORTION OF FIBER CONTENT EQUAL TO APPROXIMATELY ONE-HALF OF THE TOTAL WEIGHT OF THE PAD.

ANODIZING: WHERE ANODIZED METAL BRIDGE RAIL IS SHOWN ON THE PLANS, THE ALUMINUM ALLOY USED SHALL ONLY BE 6005-T5. THE ANODIZING SHALL CONFORM TO THE REQUIRMENTS OF ASTM 8580 TYPE A-ENGINEERING HARD COAT. IF THE THE COLOR OF THE ANODIZING IS NOT SHOWN ON THE PLANS, IT SHALL BE DARK BRONZE.



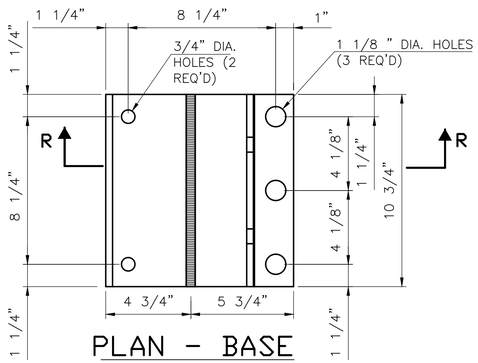
SECTION

SCALE: 3" = 1'-0"



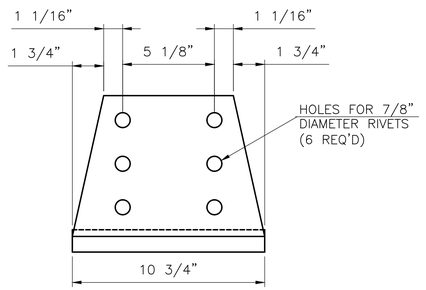
END CAP DETAILS

SCALE: 3" = 1'-0"



PLAN - BASE

SCALE: 3" = 1'-0"



ELEVATION - BASE

SCALE: 3" = 1'-0"

0 1 2 3

ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.F.	Checked by: J.A.S.	
Purpose	Released by		Date
○ For Comment			
○ For Approval			
○ For Bid			
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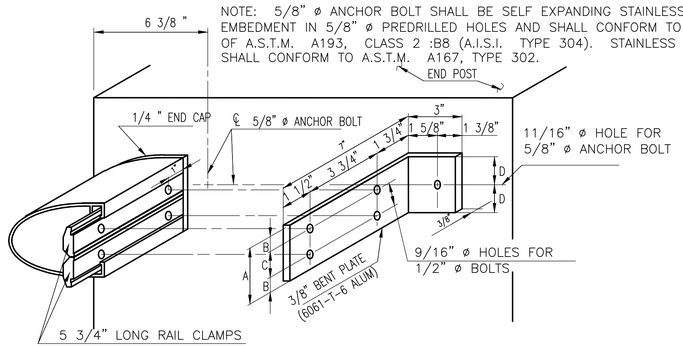
METAL BRIDGE RAIL - THREE RAIL TRAFFIC

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	18	0
Scale: AS SHOWN			

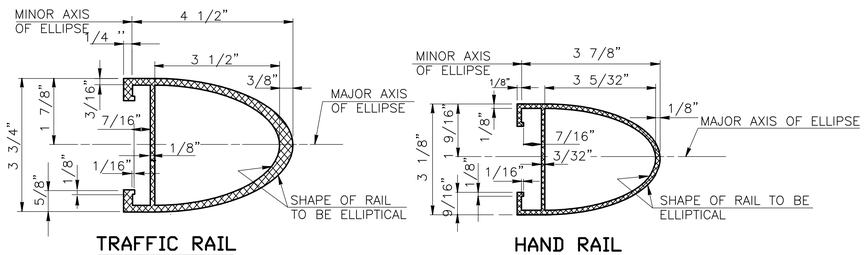


DETAIL OF RAIL ATTACHMENT TO END POST

SCALE: 3" = 1'- 0"

NOTE :
PAINT SURFACE OF PLATE IN CONTACT WITH CONCRETEWITH A HEAVY COAT OF ALUMINUM PIGMENTED ALKALINE RESISTANT BITUMINOUS PAINT EQUAL TO FEDERAL SPECIFICATIONS TT-C-001079D.

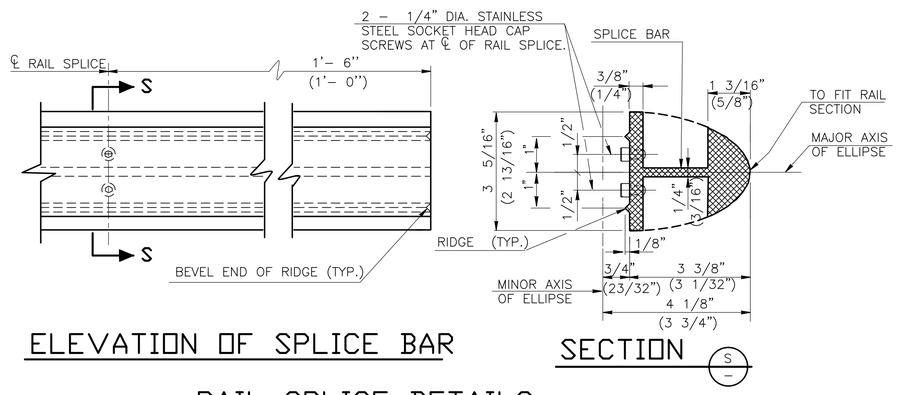
BENT PLATE DIMENSIONS		
SYMBOL	TRAFFIC RAIL	HAND RAIL
A	3 3/4"	3 1/8"
B	1 1/32"	15/16"
C	1 11/16"	1 1/4"
D	1 7/8"	1 9/16"



TRAFFIC RAIL HAND RAIL

RAIL SECTIONS

SCALE: 6" = 1'-0"



ELEVATION OF SPLICE BAR

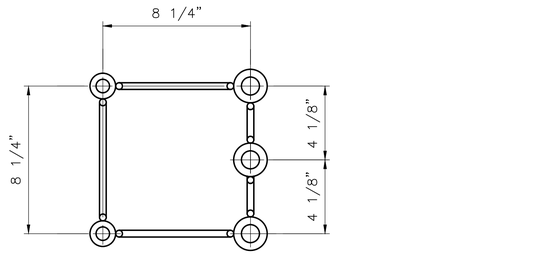
SECTION S

RAIL SPLICE DETAILS

(TRAFFIC RAIL SHOWN - HAND RAIL SIMILAR)

SCALE: 6" = 1'-0"

NOTE : FOR LOCATION SEE RAIL ELEVATION, STR-2.

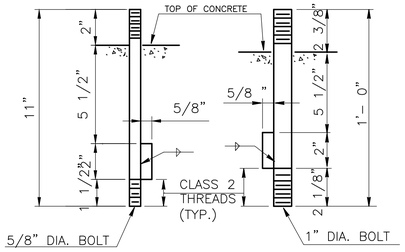


SYSTEM "B"

PRESET ANCHORAGE DETAILS

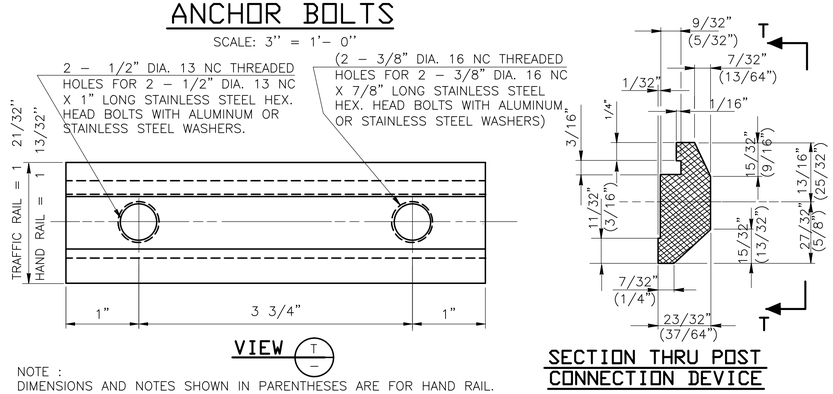
SCALE: 3" = 1'-0"

NOTE: FOR PRESET ANCHORAGE, USE 3 1/4" LONG STAINLESS STEEL BOLTS.



DETAIL OF STAINLESS STEEL ANCHOR BOLTS

SCALE: 3" = 1'- 0"



VIEW T

SECTION THRU POST CONNECTION DEVICE

NOTE :
DIMENSIONS AND NOTES SHOWN IN PARENTHESES ARE FOR HAND RAIL.

POST CONNECTION DEVICE DETAILS

(DEVICE FOR TRAFFIC RAIL SHOWN - HAND RAIL SIMILAR)

SCALE: 1" = 1"

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

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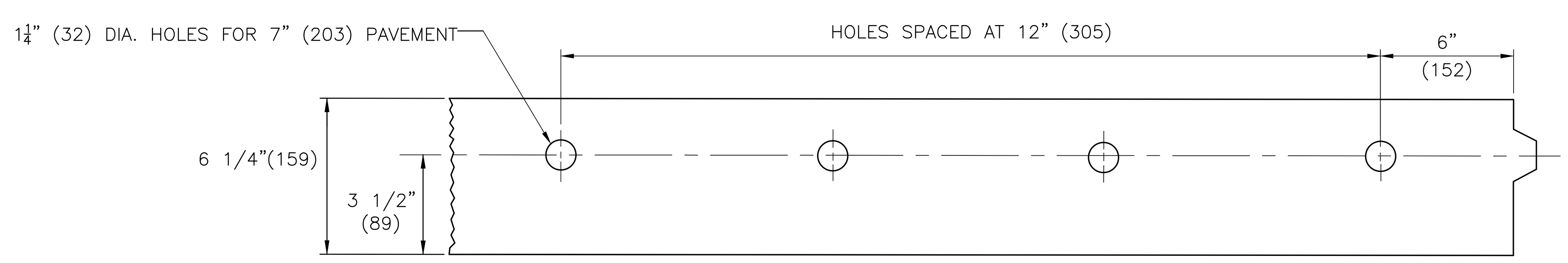
METAL BRIDGE RAIL - THREE RAIL TRAFFIC

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

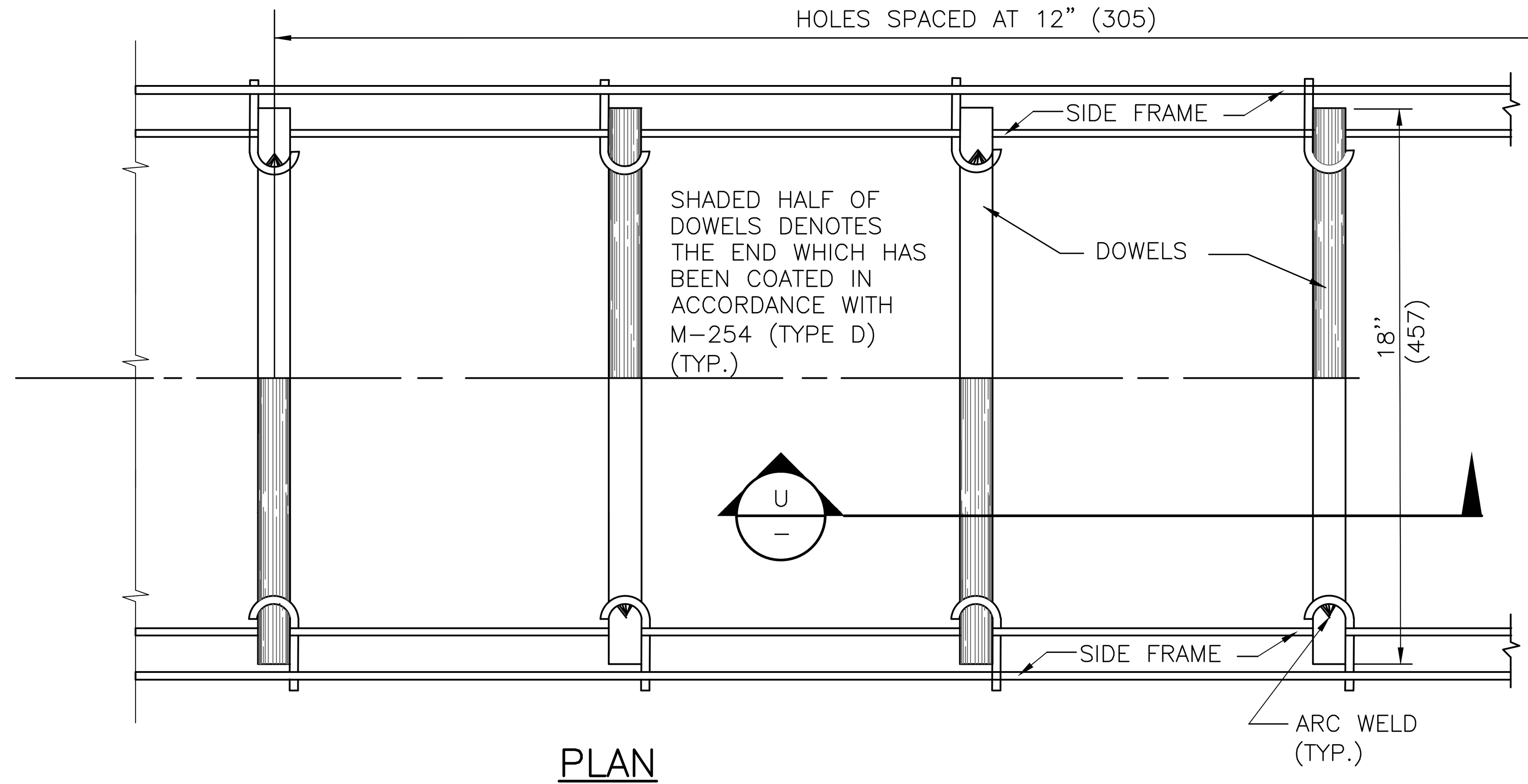
Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	19	0
Scale: AS SHOWN			



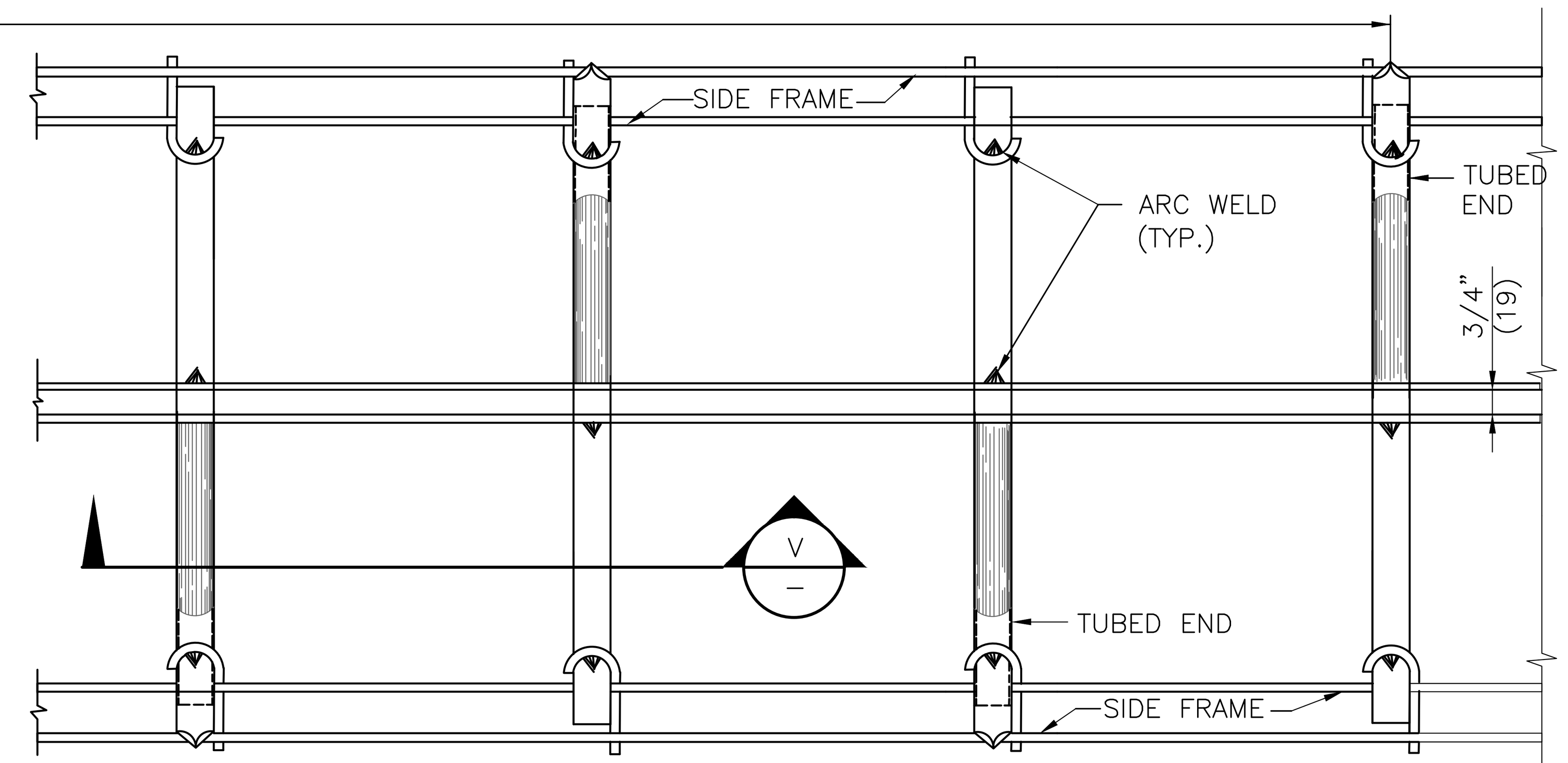
DETAIL OF JOINT FILLER IN EXPANSION JOINT
N.T.S.

GENERAL NOTES:

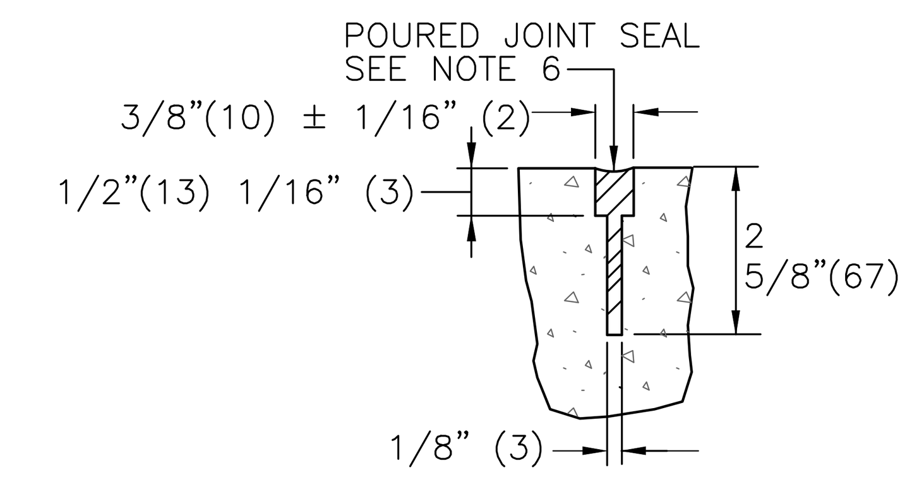
1. MATERIALS FOR SIDE FRAMES AND CENTER SUPPORTS SHALL MEET THE REQUIREMENTS OF AASHTO M-31. ALTERNATE FRAME DESIGN MAY BE APPROVED BY THE ENGINEER.
2. DOWEL BAR DIAMETER SIZES ARE EXCLUSIVE OF COATINGS. ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.
3. DEPTH OF PAVEMENT EQUALS 7".
4. ALL SIDE FRAMES AND CENTER SUPPORTS SHALL BE 1 GAUGE WIRE OR 5/16" (8) BARS THROUGHOUT.
5. AT FIRST POURING, THE JOINT SEAL MATERIAL SHALL FILL THE JOINT FLUSH WITH THE PAVEMENT SURFACE. AFTER THIS MATERIAL HAS COOLED AND CONTRACTED, THE REMAINING JOINT OPENING SHALL BE FILLED TO WITHIN 1/8" (3) OF THE PAVEMENT SURFACE.



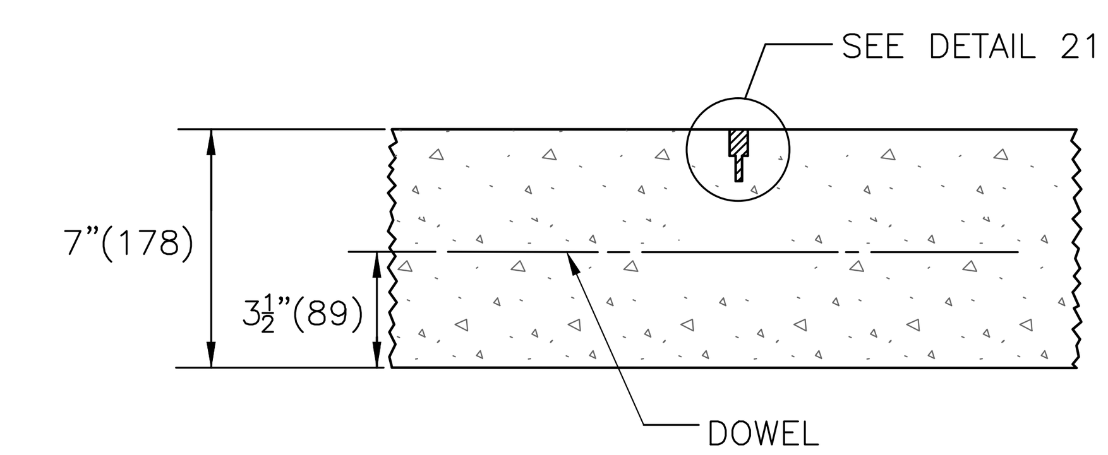
PLAN
IN CONTRACTION JOINT
N.T.S.



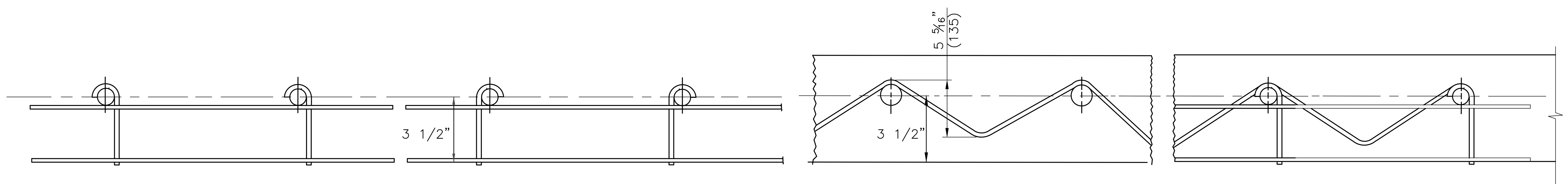
PLAN
IN EXPANSION JOINT
N.T.S.



SAWED CONTRACTION JOINT DETAIL 21



SECTION THRU TRANSVERSE CONTRACTION JOINT
N.T.S.

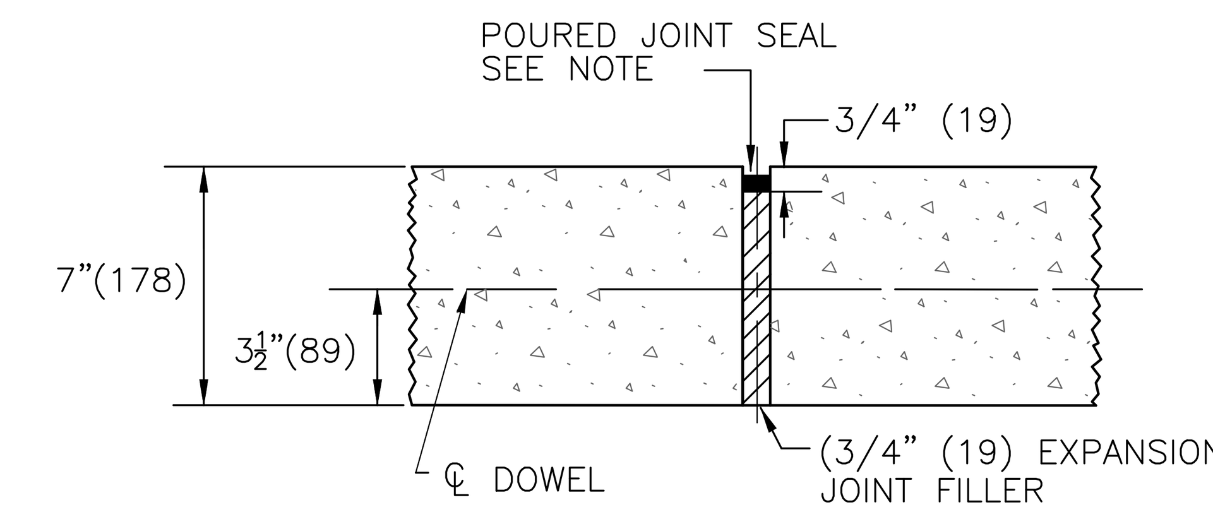


SIDE VIEW
N.T.S.

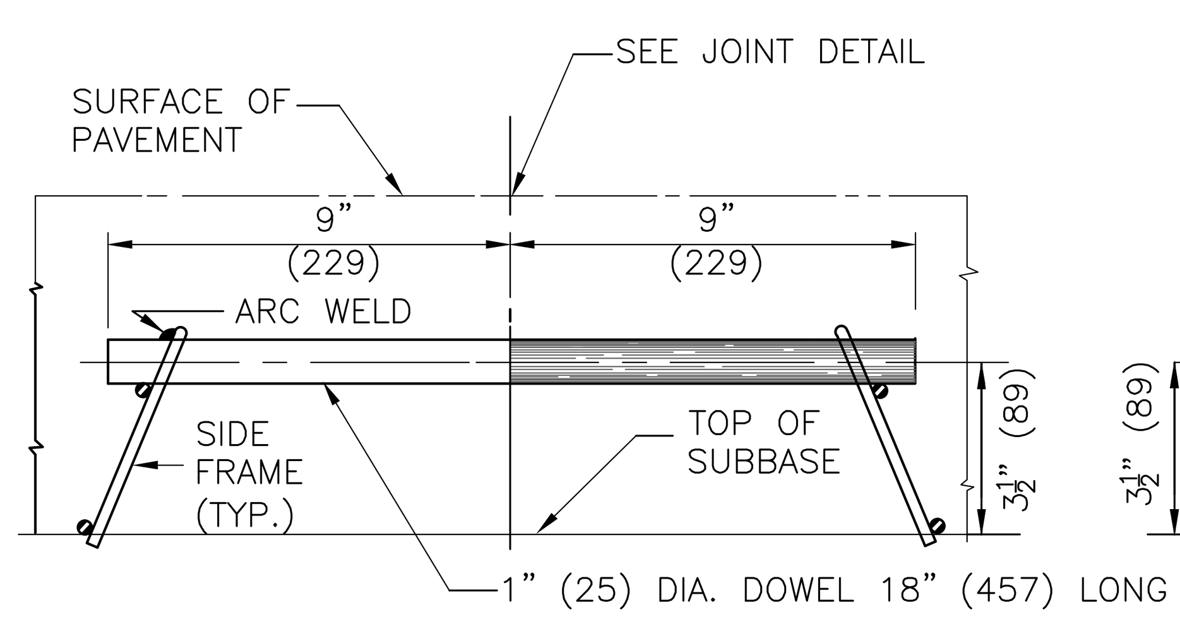
SECTION U
N.T.S.

SECTION V
N.T.S.

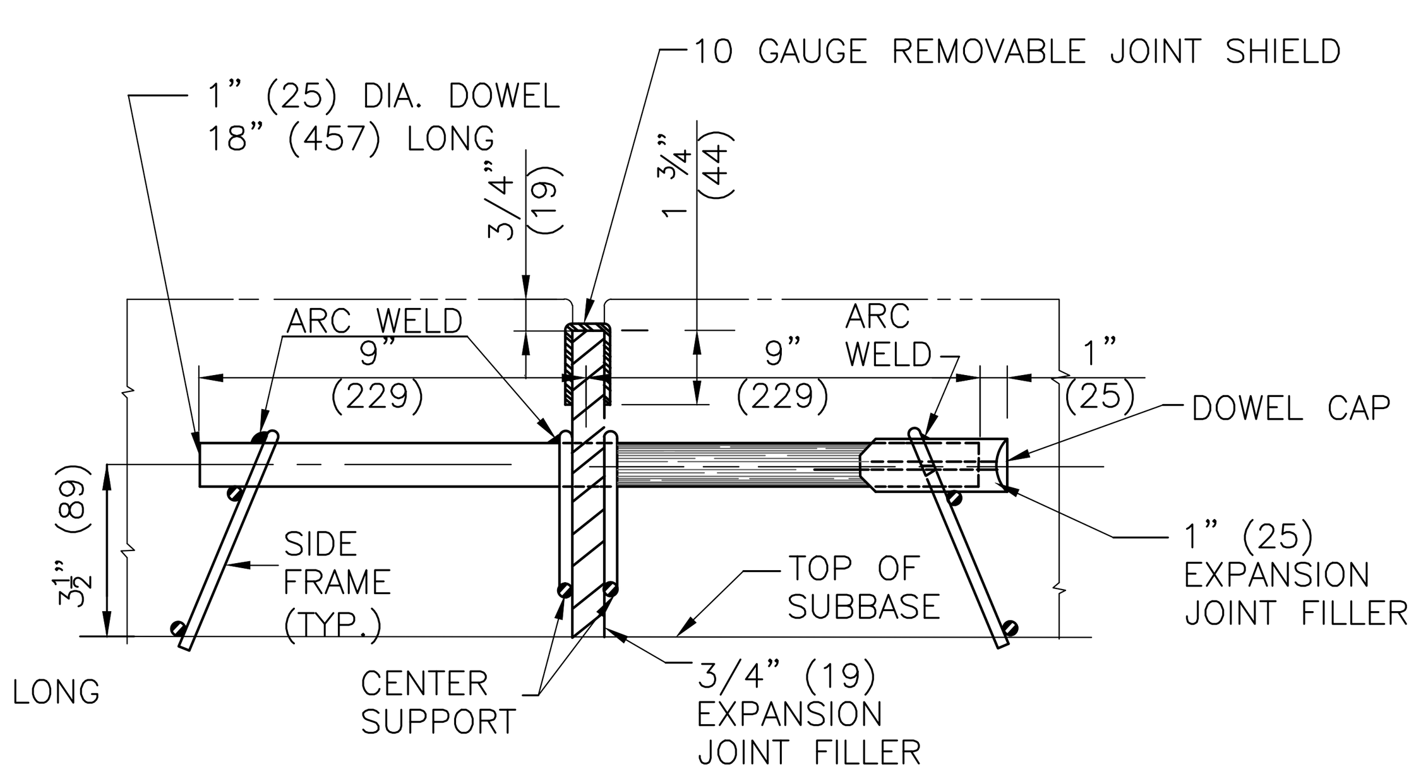
SIDE VIEW
N.T.S.



SECTION THRU TRANSVERSE EXPANSION JOINT
N.T.S.



SECTION THRU UNIT IN CONTRACTION
N.T.S.



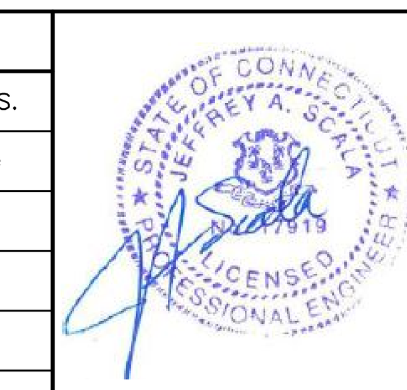
SECTION THRU UNIT IN EXPANSION JOINT
N.T.S.

ALL METRIC DIMENSIONS IN PARETHESIS ARE IN MILLIMETER (mm) UNLESS OTHERWISE NOTED.

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL		
Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
For Comment		
For Approval		
For Bid		
For Construction		



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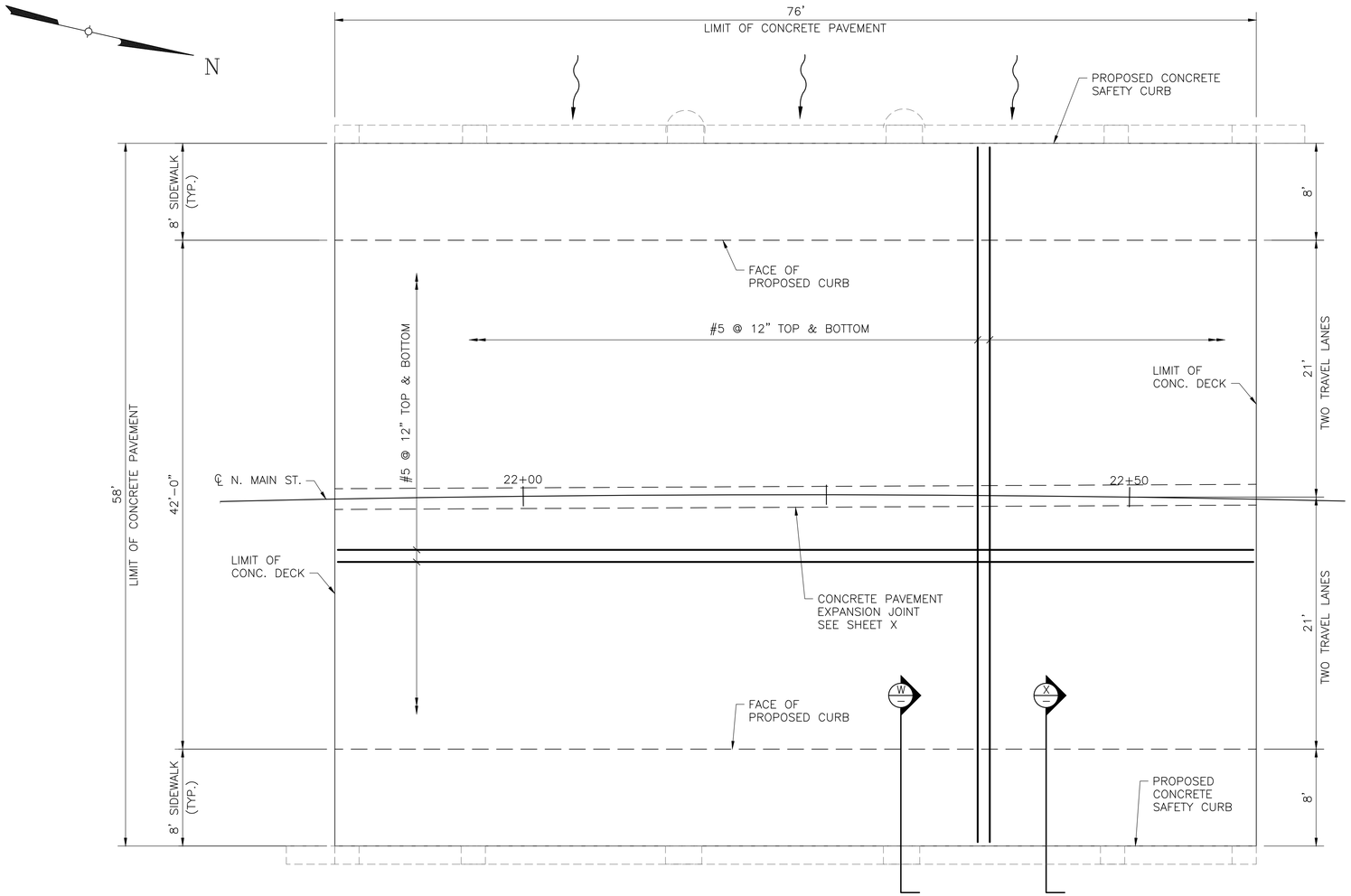
CONCRETE PAVEMENT JOINT DETAIL

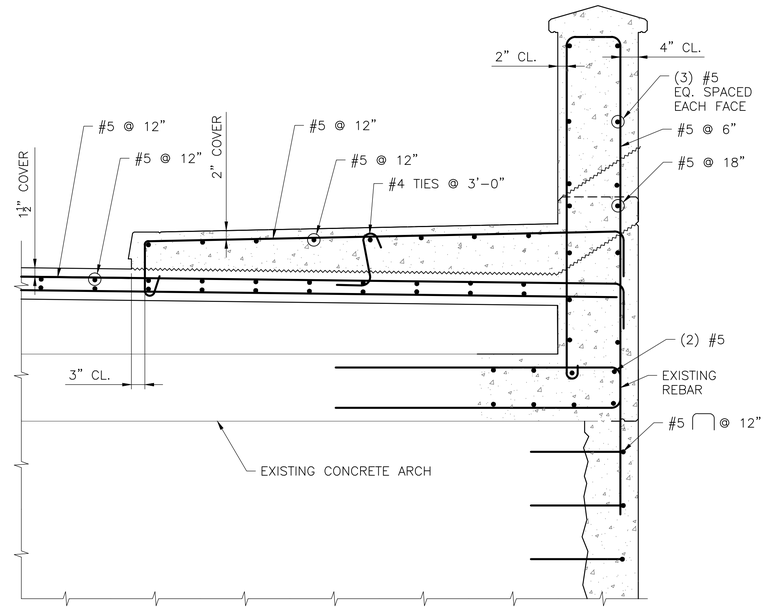
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	20	0
Scale N.T.S.			



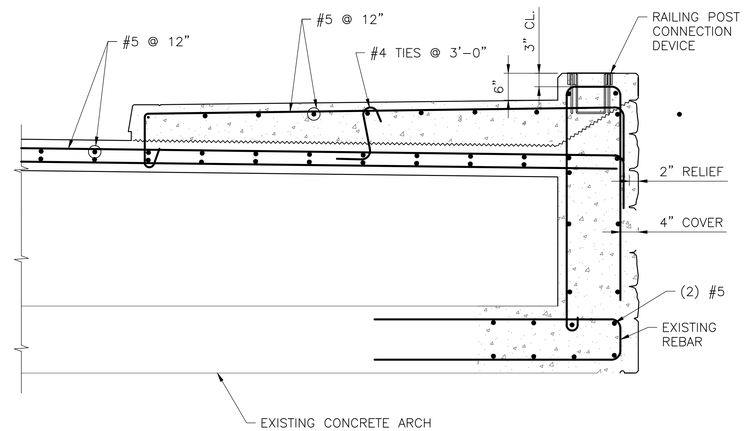
CONCRETE PAVEMENT PLAN

SCALE: 3/16" = 1'-0"



W SECTION OF ARCH AT PIER

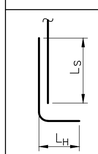
SCALE: 3/4" = 1'-0"



NOTE: HAND RAILING NOT SHOWN FOR CLARITY.

X SECTION OF ARCH

STANDARD REBAR HOOK & SPLICE DIMENSIONS

DIAGRAM	SIZE	HOOK L_H	L_S VERT
	#3	6"	19"
	#4	8"	26"
	#5	10"	31"
	#6	12"	38"

NOTE: BASED ON 4000 PSI CONCRETE.

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: P.I.O.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
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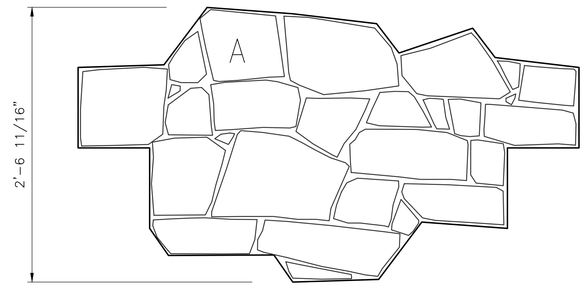
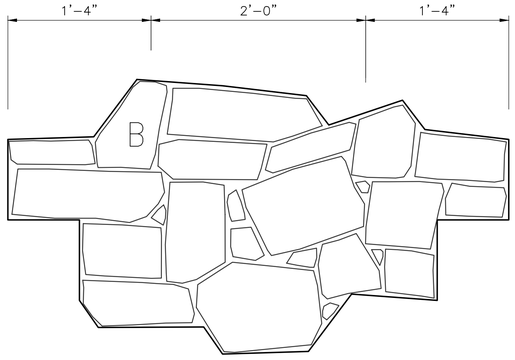
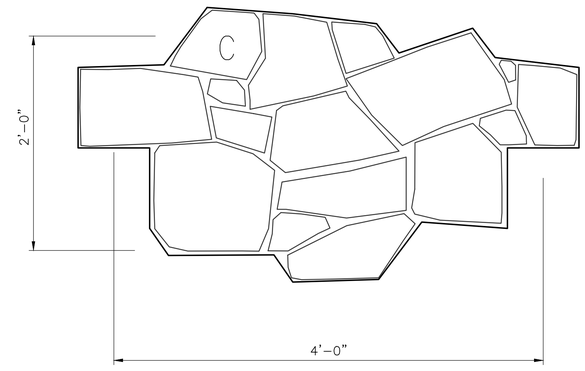
CONCRETE PAVEMENT PLAN

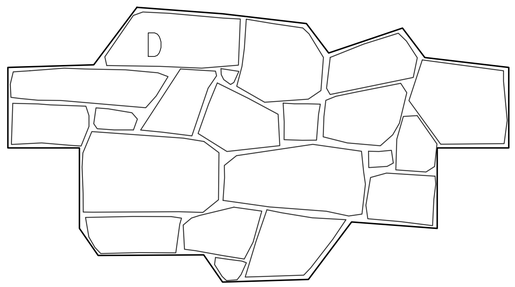
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

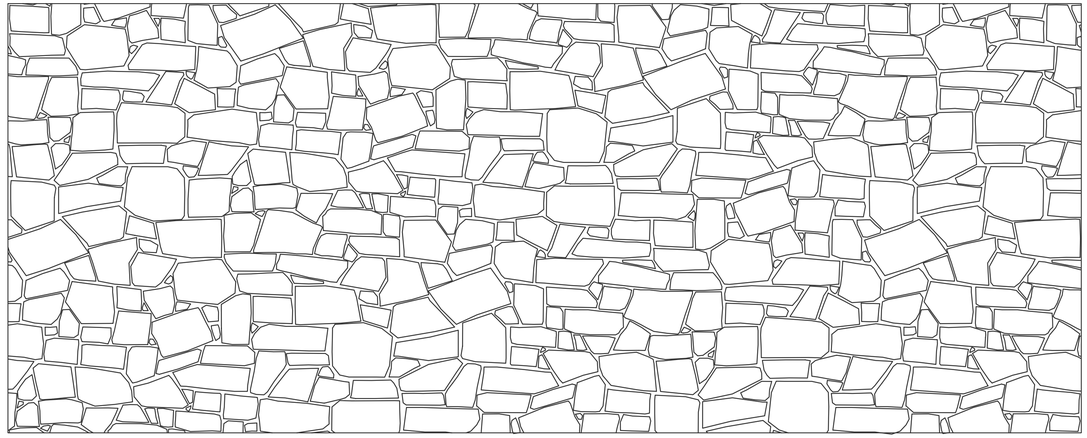
Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	21	0
Scale: AS SHOWN			

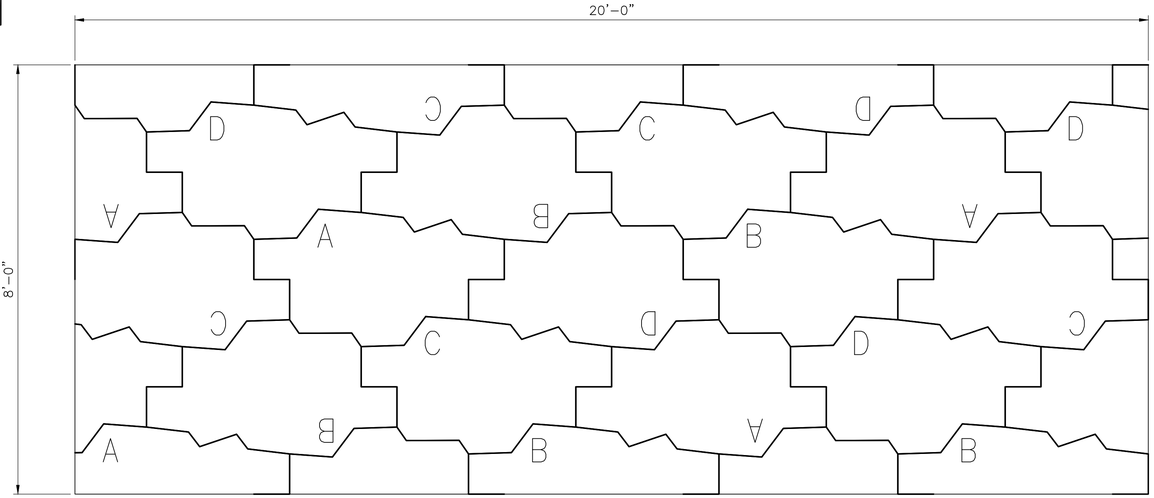












PART #	SNAP	# OF PARTS	SQ. FT.	RELIEF	LINER THICKNESS
A	4'X2'	1	8	2"	3"
B	4'X2'	1	8	2"	3"
C	4'X2'	1	8	2"	3"
D	4'X2'	1	8	2"	3"

CRS 12979: ADIRONDACK DRYSTACK

FORM LINER MODULES, DIMENSIONS AND SPECIFICATIONS

17B Trowbridge Drive
Bethel, CT 06801

Ph: 203.743.3693
Fax: 203.778.5242

CONCRETE ROCK SURFACES, LLC

NOTE:

1. FORMLINER SHALL BE AS SPECIFIED ON THIS SHEET OR AS APPROVED BY THE ENGINEER.

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
○ For Comment		
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ARCHITECTURAL FORMLINER DETAILS

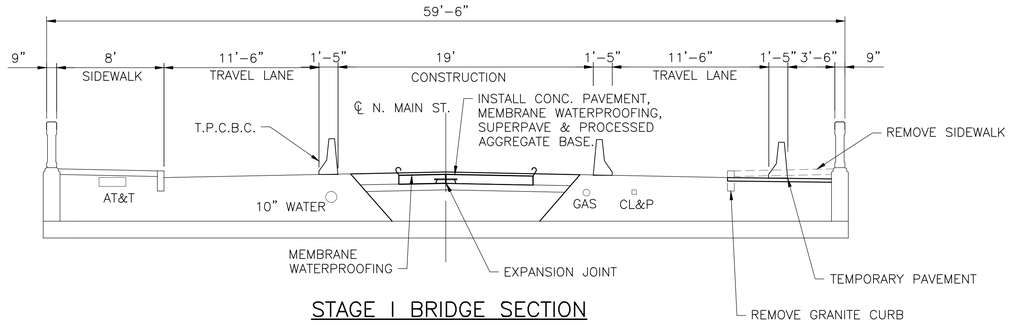
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3–02–15	6550.01	22	0
Scale N.T.S.			

STAGE CONSTRUCTION NOTES

STAGE I

1. REMOVE EAST SIDEWALK AND GRADE TO ALLOW FOR PLACEMENT OF TEMPORARY BARRIER.
2. INSTALL TEMPORARY BARRIERS (T.P.C.B.C.) AND MERGE TRAFFIC AS SHOWN.
3. CONSTRUCT THE MIDDLE SECTION OF THE BRIDGE: REMOVE PAVEMENT AND BACKFILL TO EXPOSE THE TOP OF ARCH. CARE MUST BE EXERCISED NOT TO INTERRUPT OR DAMAGE THE EXISTING UTILITIES.
4. PATCH AND REPAIR THE TOP OF ARCH AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
5. INSTALL SECTION OF THE 4 INCH PERFORATED PIPE DRAIN. BACKFILL AS DIRECTED BY THE ENGINEER AND PLACE THE BITUMINOUS CONCRETE BASE COURSE.
6. PLACE MEMBRANE WATERPROOFING IN ACCORDANCE WITH THE MANUFACTURER SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. PROTECT THE ENDS OF THE MEMBRANE TO ALLOW FOR OVERLAPPING AT THE SUBSEQUENT CONSTRUCTION STAGES.

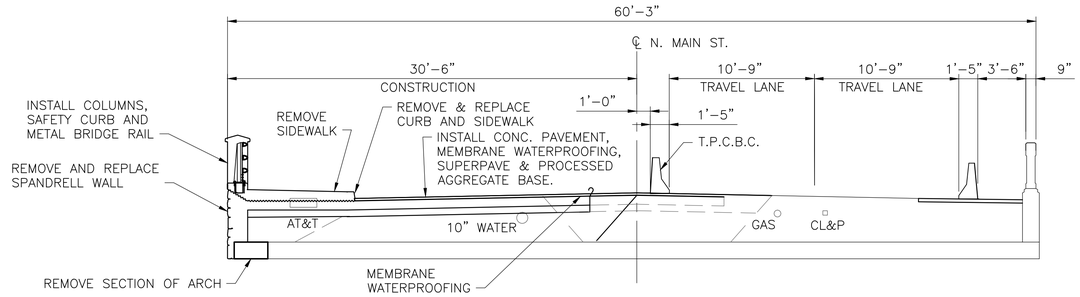


STAGE I BRIDGE SECTION

SCALE: 3/16" = 1'-0"

STAGE II

1. RELOCATE T.P.C.B.C. AS SHOWN AND SHIFT TRAFFIC.
2. CONSTRUCT THE WESTERN SECTION OF THE BRIDGE: REMOVE THE SIDEWALK INCLUDING THE GRANITE CURB, REMOVE PAVEMENT AND BACKFILL TO EXPOSE THE TOP OF ARCH. REMOVE THE PARAPET INCLUDING THE SPANDREL WALL. CARE MUST BE EXERCISED DURING EXCAVATION SO AS NOT TO DAMAGE THE EXISTING UTILITIES.
3. REMOVE THE END SECTION OF THE EXISTING ARCH. PATCH TOP OF ARCH AND REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
4. POUR THE NEW SECTION OF THE ARCH, SPANDREL WALL AND PARAPET.ALLOW AT LEAST SEVEN DAYS OR WHEN THE CONCRETE REACHES A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI BEFORE EACH SUBSEQUENT POUR OF THE ABOVE ELEMENTS AND BEFORE BACKFILLING.
6. INSTALL AND CONNECT SECTION OF THE 4" PERFORATED PIPE DRAIN TO THE MIDDLE SECTION.
7. PLACE MEMBRANE WATERPROOFING IN ACCORDANCE WITH THE CONCRETE PAVEMENT MANUFACTURER'S SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. OVERLAP THE MEMBRANE WATERPROOFING BY AT LEAST 12 INCHES WITH THAT OF STAGE I.
8. BACKFILL AS DIRECTED AND PLACE THE BITUMINOUS BASE COURSE.

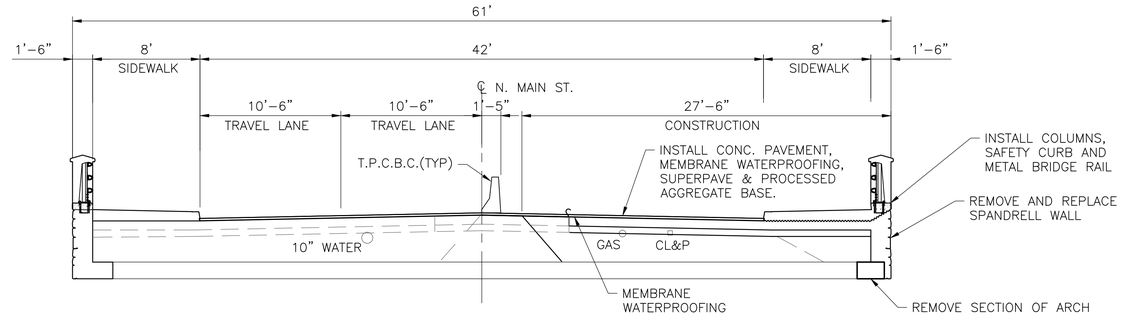


STAGE II BRIDGE SECTION

SCALE: 3/16" = 1'-0"

STAGE III

1. RELOCATE T.P.C.B.C. AS SHOWN AND SHIFT TRAFFIC.
2. CONSTRUCT THE EASTERN SECTION OF THE BRIDGE: REMOVE PAVEMENT AND BACKFILL TO EXPOSE TOP OF ARCH. CARE MUST BE EXERCISED NOT TO INTERRUPT OR DAMAGE THE EXISTING UTILITIES. REMOVE THE EXISTING PARAPET.
3. PATCH AND REPAIR THE TOP OF ARCH AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
4. POUR THE NEW PARAPET AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. ALLOW AT LEAST SEVEN DAYS OR WHEN THE CONCRETE REACHES A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI BEFORE BACKFILLING.
5. INSTALL AND CONNECT THE REMAINING SECTION OF THE 4" PERFORATED DRAIN.
6. PLACE MEMBRANE WATERPROOFING IN ACCORDANCE WITH THE CONCRETE PAVEMENT MANUFACTURER'S SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. OVERLAP THE MEMBRANE WITH THAT OF STAGE I.
7. BACKFILL AS DIRECTED AND PLACE THE BITUMINOUS BASE COURSE.
8. REMOVE ALL BARRIERS AND PLACE THE FINAL COURSE OF THE BITUMINOUS PAVEMENT USING TRAFFIC CONES, COMPLETE THE STRIPING AND RE-ESTABLISH NORTH MAIN STREET TRAFFIC.



STAGE III BRIDGE SECTION

SCALE: 3/16" = 1'-0"

0 1 2 3

ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: K.R.F.	Checked by: J.A.S.	
Purpose	Released by		Date
○ For Comment			
○ For Approval			
○ For Bid			
○ For Construction			

STATE OF CONNECTICUT JEFFREY A. SCALA 21115 LICENSED PROFESSIONAL ENGINEER

TECTONIC
• PLANNING
• ENGINEERING
• SURVEYING
• CONSTRUCTION MANAGEMENT

TECTONIC Engineering & Surveying Consultants P.C.
1344 Silas Deane Highway, Suite 500
Rocky Hill, CT 06067
Phone: (860) 563-2341
Fax: (860) 257-4882
www.tectonicengineering.com

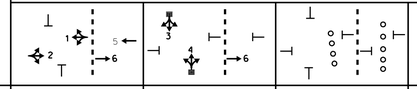
STAGE CONSTRUCTION

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	23	0
Scale: AS SHOWN			

MOVEMENT DIAGRAM

NONE

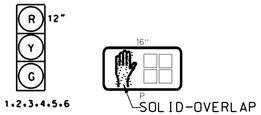


NTOR		PHASE 1			PHASE 2			PHASE 3			PHASE 4			PHASE 5			PHASE 6			PHASE 7			PHASE 8		
FACE #	FLASH	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL
1	Y	G	Y	R	R	R	R	R	R	R															
2	Y	G	Y	R	R	R	R	R	R	R															
3	R	R	R	R	G	Y	R	R	R	R															
4	R	R	R	R	G	Y	R	R	R	R															
5	Y	G	Y	R	R	R	R	R	R	R															
6	Y	G	G	G	G	Y	R	R	R	R															
P	OFF	←			DW			WØ		DW →															
MIN.		15	3	1	5	3	1	4	14	4	0														
MAX.		80	5	3	30	5	3	10	20	4	3														

INTERVALS	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8
MIN GRN	15	5	7					
WALK			14①					
PED CLR								
VEH EXT		2						
MAX 1	78	20	COUNTDOWN PEDESTRIAN SIGNAL					
MAX 2	58	20						
YELLOW	4.6	2.5	4.0					
RED	2.3	2.8	0.1					
ADD INIT								
MAX INIT								
TBR								
TTR								
MIN GAP								
MODE	MAX. RECALL	NON-LOCK	NON-LOCK	OFF	OFF	OFF	OFF	OFF
INT START	THIS PHASE							

ENERGY BY	TOWN	ADDRESS #	WEST HARTFORD	INTERSECTION #
MAINT LEVEL	1	SERVICE POLE	SNET CO 1892	
METERED SERVICE				

SIGNAL FACES



ALL INDICATIONS HAVE LED LAMPS, TUNNEL VISORS

TEMPORARY
TOWN SIGNAL

OFFICE RECORD

TIR # 155-1501-01 SM # N/A
SIGNAL REVISED:
INSTALLED TEMPORARY TRAFFIC SIGNAL FOR TOWN BRIDGE PROJECT

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION
DIVISION OF TRAFFIC ENGINEERING

TRAFFIC CONTROL SIGNAL

TOWN OF WEST HARTFORD
NORTH MAIN STREET AT
LINBROOK ROAD AND WYNDWOOD ROAD

REV # 00	TRAFFIC DATE	ELECTRICAL DATE
ENGINEER		
DRAWN BY	TECTONIC	
CHECKED BY		
SUBMITTED BY		
APPROVED BY		
DATE		

DETECTORS

IDENT	SIZE (WXL)	MODE
D1	6' x 34'	8" DELAY
D2	6' x 34'	8" DELAY

PROGRAM

FUNCTION	TIME	DAYS
FLASH	FUTURE	
MAX. 1	0600-0900	M-F
	1600-1900	M-F
MAX. 2	ALL OTHER TIMES	

COORDINATION TYPE

CYCLE	OFFSET SEC	OFFSET %	PHASE SPLITS SEC / % Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8

PERMIS PERIOD: Ø SEC

SYSTEM LOC: MASTER

TECHNICAL NOTES

STANDARD OVERLAP SKIP FEATURES APPLY
① COUNTDOWN ONLY DURING FLASHING PEDESTRIAN CLEARANCE INTERVAL
MANUAL AND INTERVAL ADVANCE TO BE DISABLED DURING PHASE 3
PEDESTRIAN CLEARANCE INTERVAL

LEGEND:

R	RED	◀R	RED ARROW
Y	YELLOW	◀Y	YELLOW ARROW
G	GREEN	◀—	GREEN ARROW
FL.	FLASHING	WØ	WALK/ PED. CLR
		D.W.	DON'T WALK

CONSTRUCTION NOTES :

1. ALL TRAFFIC EQUIPMENT IS FOR TEMPORARY TRAFFIC SIGNAL.
2. ENSURE SPAN POLE AND WIRE CABLE HAVE SUFFICIENT HORIZONTAL AND VERTICAL CLEARANCE FROM PROPOSED OR EXISTING OVERHEAD UTILITY LINES.
3. THE BOTTOM OF SIGNAL HEADS SHALL NOT BE LESS THAN 17' ABOVE ROADWAY.
4. SEE MPT PLAN FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS.
5. STOP BAR AND SIGNAL HEADS SHALL BE ADJUSTED FOR EACH STAGE OF THE BRIDGE CONSTRUCTION AS DIRECT BY THE ENGINEER. CONTRACTOR PROVIDE ADEQUATE SIGNAL HEAD CABLE SLACK TO SHIFT SIGNAL HEADS ALONG THE SPAN WIRES FOR EACH OF THE CONSTRUCTION STAGES.
6. PRE-EMPTION NOT REQUIRE BY THE TOWN.
7. REQUIRED HEIGHT FOR SIGNAL STRAIN WIRES NEED TO BE COORDINATED WITH UTILITIES TO MAKE SURE NEW POLES ARE TALL ENOUGH.
8. TOWN OF WEST HARTFORD PUBLIC WORKS TO PROVIDE A TYPE V CONTROLLER FOUNDATION AND CONTROLLER CABINET TO BE INSTALLED BY THE CONTRACTOR
9. THE CONTRACTOR SHALL REMOVE THE STOP SIGNS (LEAVE THE CHANNEL POSTS) WHILE THE TEMPORARY SIGNALS ARE OPERATIONAL. THE CONTRACTOR SHALL REINSTALL THE STOP SIGNS WHEN THE TEMPORARY SIGNAL IS TAKEN OUT OF OPERATION.

UTILITY ENGINEERS CONSULTED DURING DESIGN:
FRONTIER: TERRANCE SHEA PHONE: (860) 725-1276,
CL&P: JOHN SERDECHNY PHONE: (860) 651-2560.

SPAN ATTACHMENT ON SBC#4086 TO HAVE A MINIMUM CLEARANCE OF 12" BELOW SECONDARY & 40" ABOVE HIGHEST COMMUNICATIONS.

TOWN CONTACTS:
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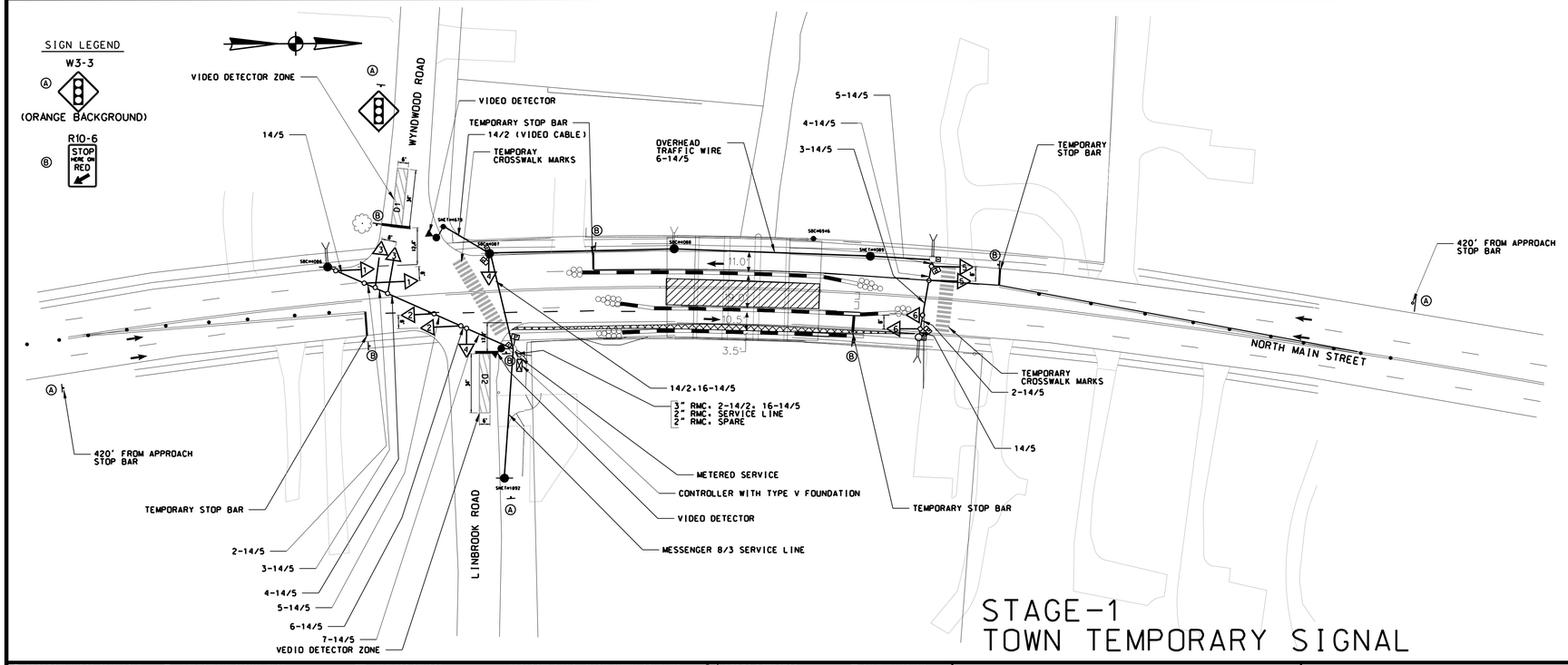


STAGE-1
TOWN TEMPORARY SIGNAL

PROPOSED WOOD SPAN POLE	PEDESTRIAN SIGNAL FACE	WIRELESS SENSOR	PROPOSED R.M.C. (RIGID METAL CONDUIT)
EXISTING WOOD SPAN POLE	TRAFFIC SIGNAL FACE	WIRELESS RECEIVER	EXISTING R.M.C. (RIGID METAL CONDUIT)
TEMPORARY SPAN POLE			DET. LEADS IN SAW CUT
EXISTING STEEL SPAN POLE	DIRECTIONAL ARW. FOR PUSH BUTTON	WIRELESS TRANSMITTER	AUXILIARY TERMINATION CABINET
PROPOSED UTILITY POLE	PEDESTRIAN PUSH BUTTON & SIGN	PROPOSED CONTROLLER	AUXILIARY EQUIPMENT CABINET
EXISTING UTILITY POLE	PEDESTAL MOUNTING		VIDEO DECTECTOR ZONE

VIDEO DETECTOR	SIDEWALK RAMP		
OPTICAL DETECTOR	SONIC DETECTOR		
SD SYSTEM DETECTOR	GUY WIRE		
EXISTING CONTROLLER	LOOP DETECTOR		
PROPOSED HANDHOLE	MAGNETIC DETECTOR		
EXISTING HANDHOLE	CABLE CLOSURE		

$FILE$

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

TOWN OF WEST HARTFORD
NORTH MAIN STREET AT LINBROOK RD
AND WYNDWOOD RD

DATE PLOTTED : $DATE$ SCALE 1" = 40'

NO.	DATE	INIT.	DESCRIPTION REVISIONS

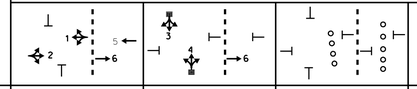
TOWN: WEST HARTFORD

DRAWING TITLE: TEMPORARY TRAFFIC CONTROL SIGNAL PLAN

PROJECT NO. 6550.01
DRAWING NO. TCS-1
SHEET NO. 24

MOVEMENT DIAGRAM

NONE



NTOR	PHASE 1			PHASE 2			PHASE 3			PHASE 4			PHASE 5			PHASE 6			PHASE 7			PHASE 8		
FACE #	FLASH	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL
1	Y	G	Y	R	R	R	R	R	R	R															
2	Y	G	Y	R	R	R	R	R	R	R															
3	R	R	R	R	G	Y	R	R	R	R															
4	R	R	R	R	G	Y	R	R	R	R															
5	Y	G	Y	R	R	R	R	R	R	R															
6	Y	G	G	G	G	Y	R	R	R	R															
P	OFF	←			DW			← WØ		DW →															
MIN.		15	3	1	5	3	1	4	14	4	0														
MAX.		80	5	3	30	5	3	10	20	4	3														

INTERVALS	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8
MIN GRN	15	5						
WALK			7					
PED CLR			14①					
VEH EXT		2						
MAX 1	78	20						
MAX 2	58	20						
YELLOW	4.6	2.5	4.0					
RED	2.3	2.8	0.1					
ADD INIT								
MAX INIT								
TBR								
TTR								
MIN GAP								
MODE	MAX. RECALL	NON-LOCK	NON-LOCK	OFF	OFF	OFF	OFF	OFF
INT START	THIS PHASE							

COUNTDOWN PEDESTRIAN SIGNAL

DETECTORS

IDENT	SIZE (WXL)	MODE
D1	6' X 34'	8" DELAY
D2	6' X 34'	8" DELAY

PROGRAM

FUNCTION	TIME	DAYS
FLASH	FUTURE	
MAX. 1	0600-0900	M-F
	1600-1900	M-F
MAX. 2	ALL OTHER TIMES	

COORDINATION TYPE

CYCLE	OFFSET SEC	OFFSET %	PHASE SPLITS SEC / % Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8

PERMIS PERIOD	Ø	SEC

SYSTEM LOC: MASTER

TECHNICAL NOTES

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MANUAL AND INTERVAL ADVANCE TO BE DISABLED DURING PHASE 3
PEDESTRIAN CLEARANCE INTERVAL

LEGEND:

R	RED	◀R	RED ARROW
Y	YELLOW	◀Y	YELLOW ARROW
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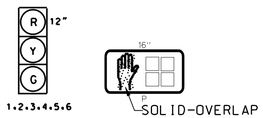
FL.	FLASHING	WØ	WALK/ PED. CLR
		D.W.	DON'T WALK

ENERGY BY	TOWN	ADDRESS #	WEST HARTFORD	INTERSECTION #
MAINT LEVEL	1	SERVICE POLE	SNET CO 1892	
METERED SERVICE				

SIGNAL FACES



ALL INDICATIONS HAVE LED LAMPS, TUNNEL VISORS

TEMPORARY
TOWN SIGNAL

OFFICE RECORD

TIR # 155-1501-01 SM # N/A
SIGNAL REVISED:
INSTALLED TEMPORARY TRAFFIC SIGNAL FOR TOWN BRIDGE PROJECT

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION
DIVISION OF TRAFFIC ENGINEERING

TRAFFIC CONTROL SIGNAL

TOWN OF WEST HARTFORD
NORTH MAIN STREET AT
LINBROOK ROAD AND WYNDWOOD ROAD

REV # 00	TRAFFIC DATE	ELECTRICAL DATE
ENGINEER		
DRAWN BY	TECTONIC	
CHECKED BY		
SUBMITTED BY		
APPROVED BY		
DATE		

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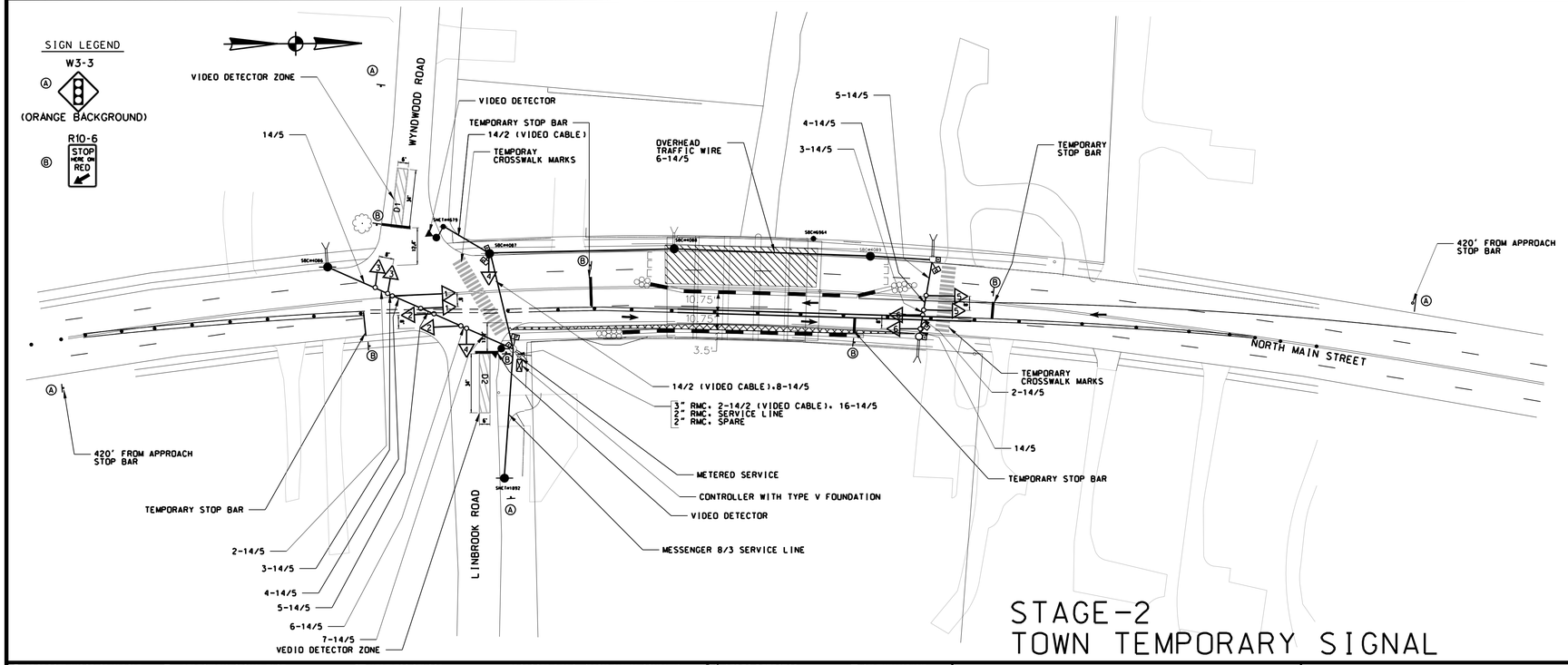


STAGE-2
TOWN TEMPORARY SIGNAL

PROPOSED WOOD SPAN POLE	PEDESTRIAN SIGNAL FACE	WIRELESS SENSOR	PROPOSED R.M.C. (RIGID METAL CONDUIT)
EXISTING WOOD SPAN POLE	TRAFFIC SIGNAL FACE	WIRELESS RECEIVER	EXISTING R.M.C. (RIGID METAL CONDUIT)
TEMPORARY SPAN POLE			DET. LEADS IN SAW CUT
EXISTING STEEL SPAN POLE	DIRECTIONAL ARW. FOR PUSH BUTTON	WIRELESS TRANSMITTER	AUXILIARY TERMINATION CABINET
PROPOSED UTILITY POLE	PEDESTRIAN PUSH BUTTON & SIGN	PROPOSED CONTROLLER	AUXILIARY EQUIPMENT CABINET
EXISTING UTILITY POLE	PEDESTAL MOUNTING		VIDEO DECTECTOR ZONE

VIDEO DETECTOR	SIDEWALK RAMP		
OPTICAL DETECTOR	SONIC DETECTOR		
SD SYSTEM DETECTOR	GUY WIRE		
EXISTING CONTROLLER	LOOP DETECTOR		
PROPOSED HANDHOLE	MAGNETIC DETECTOR		
EXISTING HANDHOLE	CABLE CLOSURE		

$FILE$

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

TOWN OF WEST HARTFORD
NORTH MAIN STREET AT LINBROOK RD AND WYNDWOOD RD

DATE PLOTTED : $DATE$ SCALE 1" = 40'

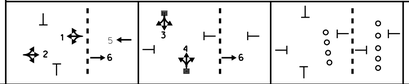
NO.	DATE	INIT.	DESCRIPTION

REVISIONS

TOWN: WEST HARTFORD
PROJECT NO. 6550.01
DRAWING NO. TCS-2
DRAWING TITLE: TEMPORARY TRAFFIC CONTROL SIGNAL PLAN
SHEET NO. 25

MOVEMENT DIAGRAM

NONE



NTOR		PHASE 1			PHASE 2			PHASE 3			PHASE 4			PHASE 5			PHASE 6			PHASE 7			PHASE 8		
	FLASH	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL
1	Y	G	Y	R	R	R	R	R	R	R															
2	Y	G	Y	R	R	R	R	R	R	R															
3	R	R	R	R	G	Y	R	R	R	R															
4	R	R	R	R	G	Y	R	R	R	R															
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P	OFF	←		→	DW		→	←	WØ	→	←	DW	→												
MIN.		15	3	1	5	3	1	4	14	4	0														
MAX.		80	5	3	30	5	3	10	20	4	3														

FACE #

INTERVALS	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8
MIN GRN	15	5						
WALK			7					
PED CLR			14①					
VEH EXT		2	COUNTDOWN PEDESTRIAN SIGNAL					
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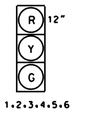
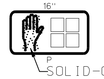
MODE	MAX. RECALL	NON-LOCK	NON-LOCK	OFF	OFF	OFF	OFF	OFF
INT START	THIS PHASE							

ENERGY BY	TOWN	ADDRESS #	WEST HARTFORD	INTERSECTION #
MAINT LEVEL	1	SERVICE POLE	SNET CO 1892	
METERED SERVICE				

SIGNAL FACES





ALL INDICATIONS HAVE LED LAMPS, TUNNEL VISORS

TEMPORARY
TOWN SIGNAL

OFFICE RECORD

TIR # 155-1501-01 SM # N/A
SIGNAL REVISED:
INSTALLED TEMPORARY TRAFFIC SIGNAL FOR TOWN BRIDGE PROJECT

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION
DIVISION OF TRAFFIC ENGINEERING

TRAFFIC CONTROL SIGNAL

TOWN OF WEST HARTFORD
NORTH MAIN STREET AT
LINBROOK ROAD AND WYNDWOOD ROAD

REV # 00	TRAFFIC		ELECTRICAL	
		DATE		DATE
ENGINEER	TECTONIC			
DRAWN BY				
CHECKED BY				
SUBMITTED BY				
APPROVED BY				
DATE				

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	1600-1900	M-F
MAX. 2	ALL OTHER TIMES	

COORDINATION TYPE

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PERMIS PERIOD	Ø	SEC

SYSTEM LOC MASTER

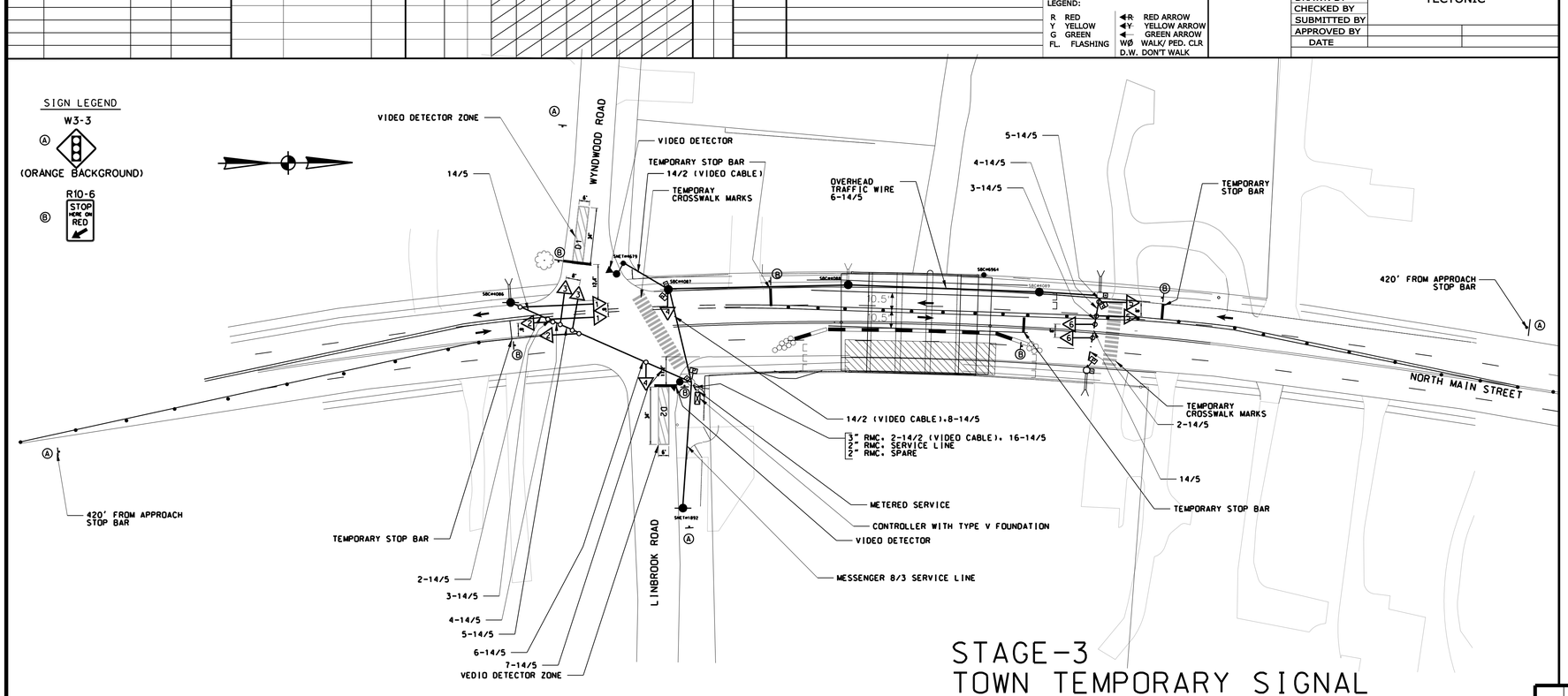
TECHNICAL NOTES

STANDARD OVERLAP SKIP FEATURES APPLY
① COUNTDOWN ONLY DURING FLASHING PEDESTRIAN CLEARANCE INTERVAL
MANUAL AND INTERVAL ADVANCE TO BE DISABLED DURING PHASE 3
PEDESTRIAN CLEARANCE INTERVAL

LEGEND:

R	RED	◀R	RED ARROW
Y	YELLOW	◀Y	YELLOW ARROW
G	GREEN	◀	GREEN ARROW
FL.	FLASHING	WØ	WALK/ PED. CLR
		D.W.	DON'T WALK

SIGN LEGEND
W3-3
Ⓐ (ORANGE BACKGROUND)
Ⓑ R10-6 STOP HERE ON RED



STAGE-3
TOWN TEMPORARY SIGNAL

PROPOSED WOOD SPAN POLE	PEDESTRIAN SIGNAL FACE
EXISTING WOOD SPAN POLE	TRAFFIC SIGNAL FACE
TEMPORARY SPAN POLE	
EXISTING STEEL SPAN POLE	DIRECTIONAL ARW. FOR PUSH BUTTON
PROPOSED UTILITY POLE	PEDESTRIAN PUSH BUTTON & SIGN
EXISTING UTILITY POLE	PEDESTAL MOUNTING
WIRELESS SENSOR	PROPOSED R.M.C. (RIGID METAL CONDUIT)
WIRELESS RECEIVER	EXISTING R.M.C. (RIGID METAL CONDUIT)
WIRELESS TRANSMITTER	DET. LEADS IN SAW CUT
PROPOSED CONTROLLER	AUXILIARY TERMINATION CABINET
	AUXILIARY EQUIPMENT CABINET
	VIDEO DECTECTOR ZONE
VIDEO DETECTOR	SIDEWALK RAMP
OPTICAL DETECTOR	SONIC DETECTOR
SD SYSTEM DETECTOR	GUY WIRE
EXISTING CONTROLLER	LOOP DETECTOR
PROPOSED HANDHOLE	MAGNETIC DETECTOR
EXISTING HANDHOLE	CABLE CLOSURE

$FILE$

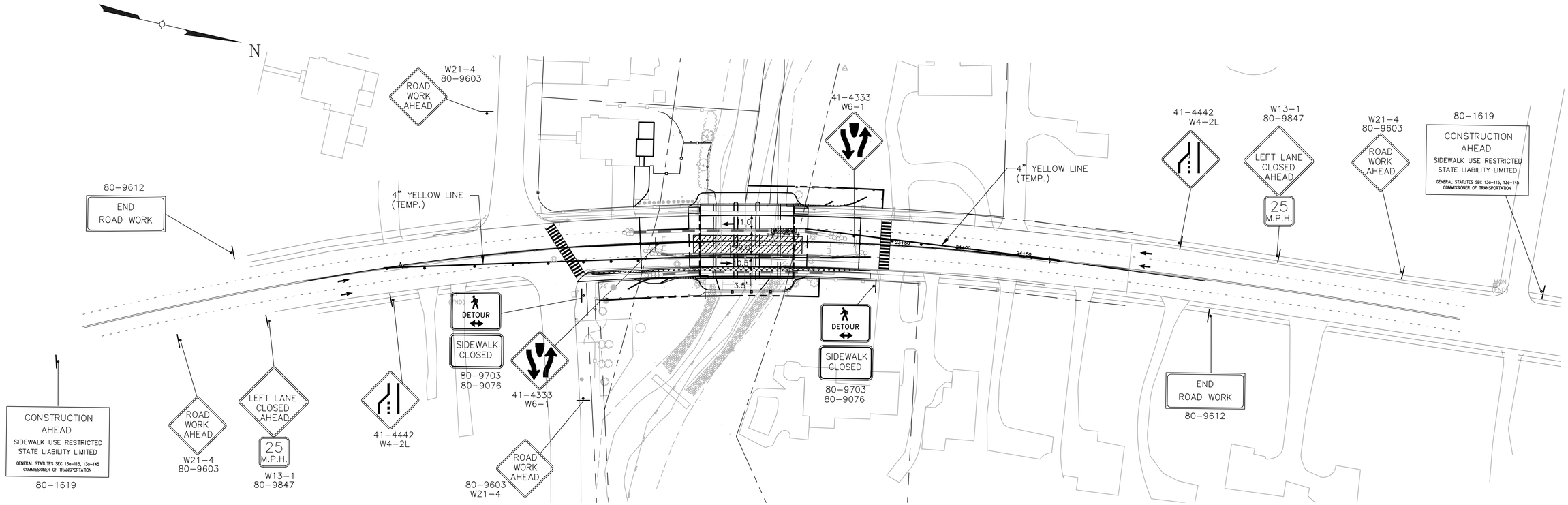
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

TOWN OF WEST HARTFORD
NORTH MAIN STREET AT LINBROOK RD
AND WYNDWOOD RD

DATE PLOTTED : $DATE$ SCALE 1" = 40'

NO.	DATE	INIT.	DESCRIPTION
			REVISIONS

TOWN: WEST HARTFORD
PROJECT NO. 6550.01
DRAWING NO. TCS-3
DRAWING TITLE: TEMPORARY TRAFFIC CONTROL SIGNAL PLAN
SHEET NO. 26

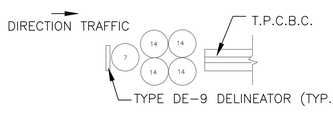


STAGE I PLAN

SCALE: 1" = 40'

SYMBOL LEGEND

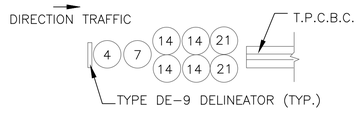
- CONSTRUCTION BARRICADE TYPE III
- TEMPORARY SIGN SUPPORT
- DOUBLE POST SIGN
- SINGLE POST SIGN
- TEMPORARY PRECAST CONCRETE BARRIER CURB
- TRAFFIC FLOW
- WORK AREA
- TRAFFIC DRUM
- CMS MESSAGE SIGN
- SIGN TO HAVE BARRICADE WARNING LIGHT–HIGH INTENSITY
- SIGNING TO BE INSTALLED AT START OF WORK AND TO REMAIN THROUGHOUT PROJECT COMPLETION
- 42" TRAFFIC CONE
- TEMPORARY PAVEMENT



MODULE SAND WEIGHT IN HUNDREDS OF POUNDS

TEMPORARY INERTIAL SYSTEM (SMALL)

N.T.S.



TEMPORARY INERTIAL SYSTEM (SAND BARRELS) (STANDARD)

N.T.S.

GENERAL NOTES:

1. WHEN EXISTING SIGNAGE AND PAVEMENT MARKINGS CONFLICTS WITH THE PROPOSED TRAFFIC PATTERN SHOWN IN THE M&PT PLANS, THE CONTRACTOR SHALL COVER OR REMOVE THOSE CONFLICTING SIGNS AND PAVEMENT MARKINGS OR SIGNS MAY ALSO BE TEMPORARILY RELOCATED IF APPROPRIATE FROM THE VIEW OF THE MOTORISTS.
2. A PORTIBLE VARIABLE MESSAGE SIGN (VMS) SHALL BE INSTALLED IN ADVANCE OF ALL CONSTRUCTION AND TRAFFIC SHIFTS, ROAD CLOSURES, AND DETOURS AS DIRECTED BY THE ENGINEER. ITEM#1131001.
3. THE PORTABLE VMS REQUIRED FOR ROAD CLOSURES SHALL BE INSTALLED AND IN OPERATION FOR AT LEAST TWO (2) WEEKS PRIOR TO THE ROAD CLOSURE.
4. SEE SPECIAL PROVISION SECTION 1.08.04 – PROSECUTION AND PROGRESS – LIMITATIONS OF OPERATIONS AND ITEM NO. 0971001A – MAINTENANCE AND PROTECTION OF TRAFFIC FOR ADDITIONAL REQUIREMENTS.
5. THE LOCATION OF SERIES 16 , ROAD WORK AHEAD AND ROAD WORK AHEAD FINES DOUBLED SIGNING SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER THEN INSTALLED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION ACTIVITIES.
6. THE LOCATION OF TRAFFIC DRUMS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET FIELD CONDITIONS AND TO CLEARLY DEFINE ACCESS TO AND EGRESS FROM ALL ROADWAYS AND DRIVEWAYS.
7. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN WALKWAYS AT ALL TIMES THROUGH OR AROUND WORK AREA DURING CONSTRUCTION. WHEN THE CONTRACTOR MAINTAINS A TEMPORARY OR EXISTING WALKWAY IN PROXIMITY TO A WORK AREA, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A WORKING PLAN AND DETAILS SHOWING HOW THE CONTRACTOR PLANS TO PROTECT THE PEDESTRIANS.
8. ALL CONSTRUCTION SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO NSTALLATION. SIGN HEIGHTS & LATERAL CLEARANCES SHALL ALSO BE FIELD VERIFIED BY THE ENGINEER. ALL PORTABLE SIGN SUPPORTS SHALL CONFORM TO NCHRP REPORT 350.
9. SIGNS, PAVEMENT MARKINGS SHOWN ON THESE PLANS SHALL BE INSTALLED PRIOR TO SHIFTING TRAFFIC.
10. PRIOR TO CLOSURE OF ANY LOCAL STREET, THE CONTRACTOR MUST CONTACT THE CITY STAMFORD FOR ALLOWABLE CLOSURE PERIODS IN THE ACCORDANCE WITH THE SPECIAL PROVISIONS AND MUST INSTALL ALL DETOUR SIGNS PRIOR TO A ROAD CLOSURE. SEE THE STAGE CONSTRUCTION PLANS FOR SEQUENCE.
11. PRIOR TO BEGINNING ANY NIGHT WORK, THE CONTRACTOR SHALL CONTRACT THE CITY OF STAMFORD TO COORDINATE AND OBTAIN ANY REQUIRED PERMITS RELATED TO NIGHT WORK, AS NOTED IN THE SPECIAL PROVISION.
12. THE CONTRACTOR SHALL MODIFY EXISTING TRAFFIC SIGNALS OR INSTALL TEMPORARY TRAFFIC SIGNALS AS NECESSARY DURING ALL STAGES TO MAINTAIN SAFE TRAFFIC OPERATIONS DURING CONSTRUCTION .TEMPORARY TRAFFIC CONTROL SIGNAL PLANS WILL NEED TO BE SUBMITTED FOR ANY TEMPORARY REVISIONS TO THE EXISTING TRAFFIC CONTROL SIGNALS AND/OR FOR ANY NEWLY INSTALLED TEMPORARY SIGNALS. PAY ITEM#1118051.
13. TEMPORARY SIGNS SHALL BE INSTALLED ON POSTS WHEN FEASIBLE.
14. ALL SIGNS FOR CONSTRUCTION WILL BE PAID FOR UNDER ITEM NO. 1220013A: CONSTRUCTION SIGNS – BRIGHT FLUORESCENT SHEETING.
15. ALL TEMPORARY PAVEMENT MARKINGS DURING WINTER SHUTDOWN TO BE EPOXY OTHERWISE USING HOT APPLIED.

0 1 2 3

ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

STATE OF CONNECTICUT JEFFREY A. SCALA LICENSED PROFESSIONAL ENGINEER

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Rocky Hill, CT 06067

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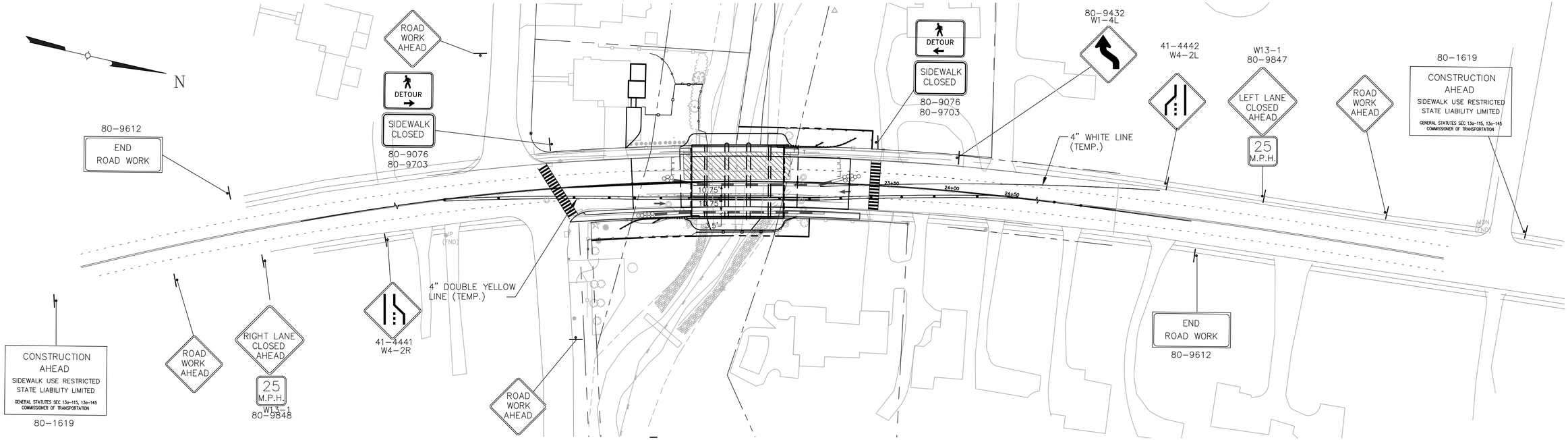
www.tectonicengineering.com

MAINTENANCE AND PROTECTION OF TRAFFIC

REHABILITATION OF BRIDGE NO.03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

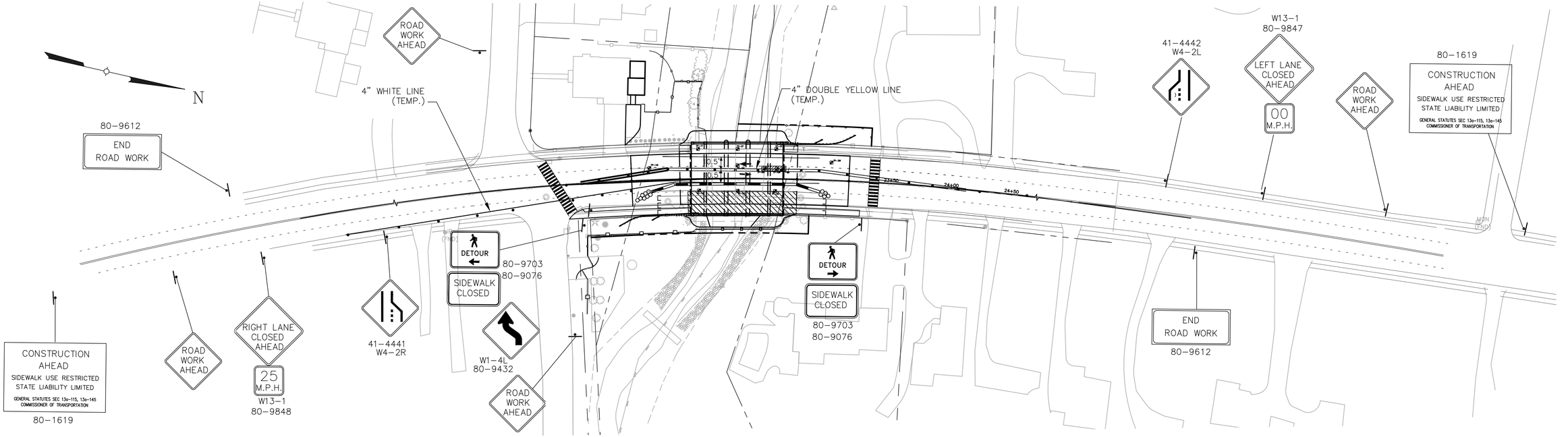
Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	27	0

Scale: AS SHOWN



STAGE II PLAN

SCALE: 1" = 40'



STAGE III PLAN

SCALE: 1" = 40'

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MAINTENANCE AND PROTECTION OF TRAFFIC

REHABILITATION OF BRIDGE NO.03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: K.R.F.	Checked by: J.A.S.

Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

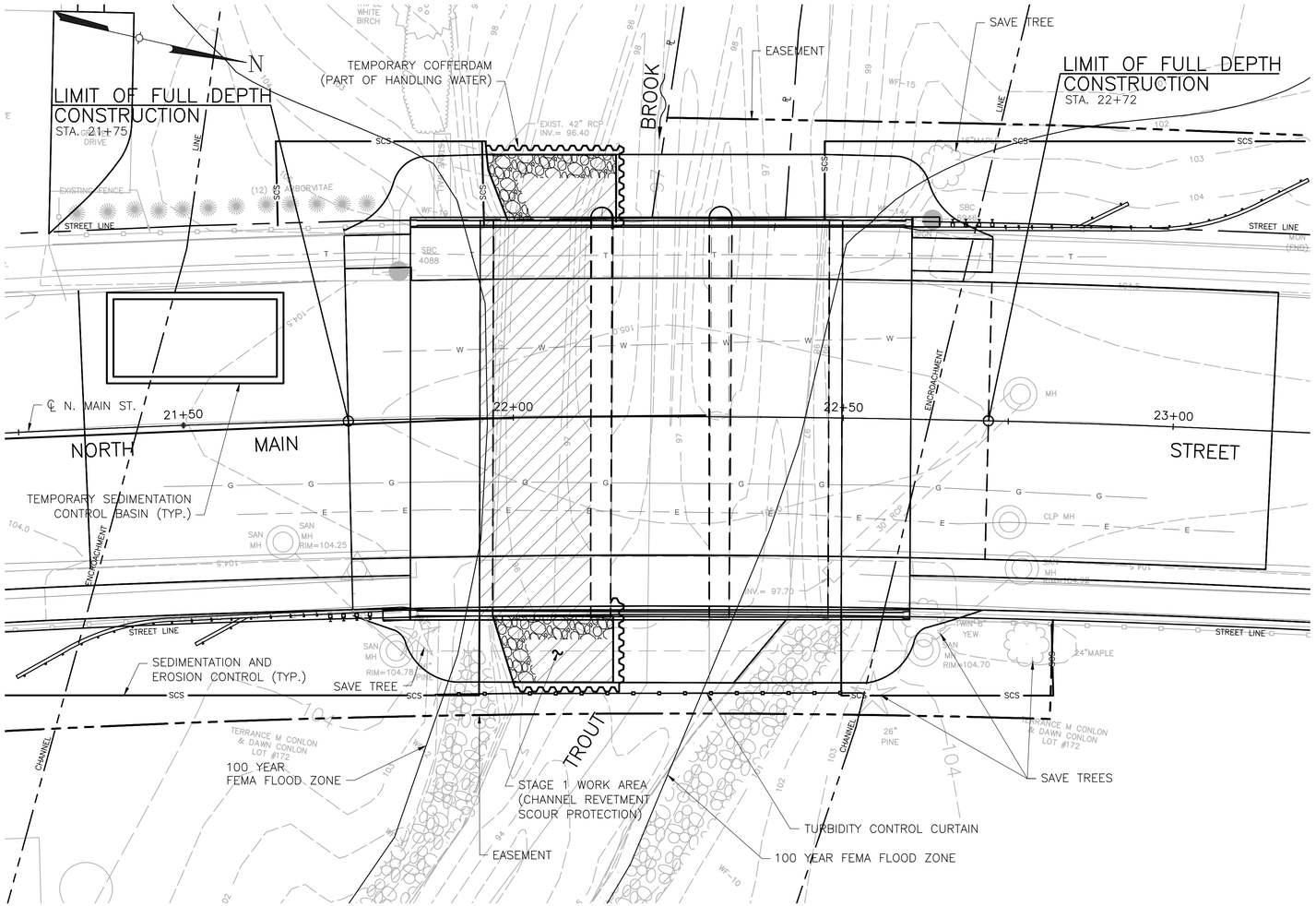
STATE OF CONNECTICUT — JEFFREY A. GRAY — LICENSED PROFESSIONAL ENGINEER

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	28	0

Scale: AS SHOWN

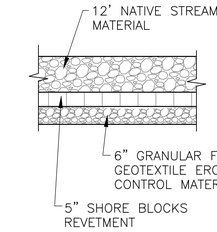
0 1 2 3

ORIGINAL SIZE IN INCHES



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

STAGE RI
SCALE: 1" = 10'-0"



22 — SCOUR REVETMENT DETAIL
N.T.S.

2-YEAR FREQUENCY DISCHARGE	449 CFS
TEMPORARY DESIGN DISCHARGE	449 CFS
TEMPORARY DESIGN FREQUENCY	2 YEAR
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	99.55 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	99.55 FEET
COFFERDAM OVERTOPPING RETURN FREQUENCY	APPROX. 1.5 YEARS

NOTES:

1. REVETMENT WORK MUST BE PERFORMED CONCURRENTLY WITH BRIDGE WORK PHASE II AND MUST OCCUR DURING STAGE II AND STAGE III.
2. LOCATION OF SEDIMENTATION BASIN SHALL BE DETERMINED BY THE CONTRACTOR.
3. CONTRACTOR SHALL CAREFULLY DIG IN THE VICINITY OF SEWER AND SHALL PLACE STEEL PLATES TO PROTECT IT FROM CONSTRUCTION OPERATIONS.
4. TOP OF COFFERDAM SHALL NOT EXCEED ELEVATION 99.55 FT.

CONSTRUCTION SEQUENCE

STAGE RI CHANNEL REVETMENT

1. INSTALL ALL APPLICABLE SEDIMENTATION CONTROL MEASURES.
2. INSTALL TURBIDITY CURTAIN AND COFFERDAM AS INDICATED, FOR THE EXCAVATION OF THE STREAMBED MATERIAL IN THE DRY AND ALLOW FOR THE PLACEMENT OF THE SCOUR REVETMENT.
3. WATER FROM WITHIN THE COFFERDAM SHALL BE PUMPED TO A TEMPORARY SETTLING BASIN. PERIODICALLY MONITOR THE SETTLING BASIN DISCHARGE FOR SUSPENDED SOLIDS. ADJUST AS REQUIRED BY THE ENGINEER.
4. EXCAVATE THE STREAMBED WITHIN THE COFFERDAM, PROTECTING EXISTING STRUCTURES. THE EXCAVATED STREAMBED MATERIAL SHALL BE STOCKPILED ON SITE, WITHIN THE ALLOCATED EASEMENTS, TO ALLOW FOR DRAINING. PLACE FILTER FABRIC, OR OTHER MEAN, AROUND THE BASE OF THIS STOCKPILE TO ALLOW FOR CLEAR DRAINING. EXCESS MATERIAL THAT IS NOT INTENDED FOR REUSE SHALL BE HAULED AWAY, AFTER IT DRAINED, AS DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL IMMEDIATELY COMMENCE THE SUBSTRUCTURE REPAIR WORK UNDERSIDE THE ARCH , THE ABUTMENTS AND THE PIERS. REMOVE ALL DEBRIS FROM THE CHANNEL WORK AREA IMMEDIATELY.
6. INSTALL AND SECURE THE CHANNEL REVETMENT BLOCKS AS DIRECTED BY THE MANUFACTURER, AND AS DIRECTED BY THE ENGINEER.
7. PLACE THE 12 INCH NATIVE MATERIAL ON TOP OF THE CHANNEL REVETMENT.
8. REMOVE AND RELOCATE THE COFFERDAM INCLUDING THE TURBIDITY CURTAINS FOR THE NEXT STAGE AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9. RESTORE THE DISTURBED AREAS AS SOON AS POSSIBLE AND AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR IS ADVISED THAT THE ELEVATION OF THE COFFERDAM AS SHOWN IS TO PROVIDE MINIMAL PROTECTION TO THE WORK SITE. ALL EQUIPMENT AND UNSECURED MATERIAL SHALL BE READILY REMOVABLE FROM WITHIN THE CONFINES OF THE COFFERDAM PRIOR TO IMPENDING STORM EVENT, AS DIRECTED BY THE ENGINEER. CLAIMS DUE TO WEATHER EVENTS SHALL BE LIMITED TO TIME EXTENSIONS ON THE CONTRACT ONLY.
11. THE CONTRACTOR SHALL ADHERE TO ALL PERMITS REQUIREMENTS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE DEWATERING SYSTEM AND OPERATIONS, INCLUDING THE SEDIMENTATION BASIN.
13. IF THE CONTRACTOR ELECTS TO WORK ON THE SUBSTRUCTURE REPAIRS, INCLUDING UNDERNEATH THE ARCH, IN THE WET, THEN HE SHALL SUBMIT FOR REVIEW A PLAN SHOWING THE METHOD OF DEBRIS CONTAINMENT.

LEGEND

- TEMPORARY CONSTRUCTION EASEMENT
- WORK AREA
- SCS — SEDIMENTATION CONTROL SYSTEM
- TEMPORARY COFFERDAM
- REVETMENT FOR SCOUR PROTECTION
- TEMPORARY SEDIMENTATION CONTROL BASIN
- TURBIDITY CONTROL CURTAIN

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: K.R.F.	Checked by: J.A.S.	
Purpose	Released by		Date
○ For Comment			
○ For Approval			
○ For Bid			
○ For Construction			

STATE OF CONNECTICUT JEFFREY A. SMITH LICENSED PROFESSIONAL ENGINEER

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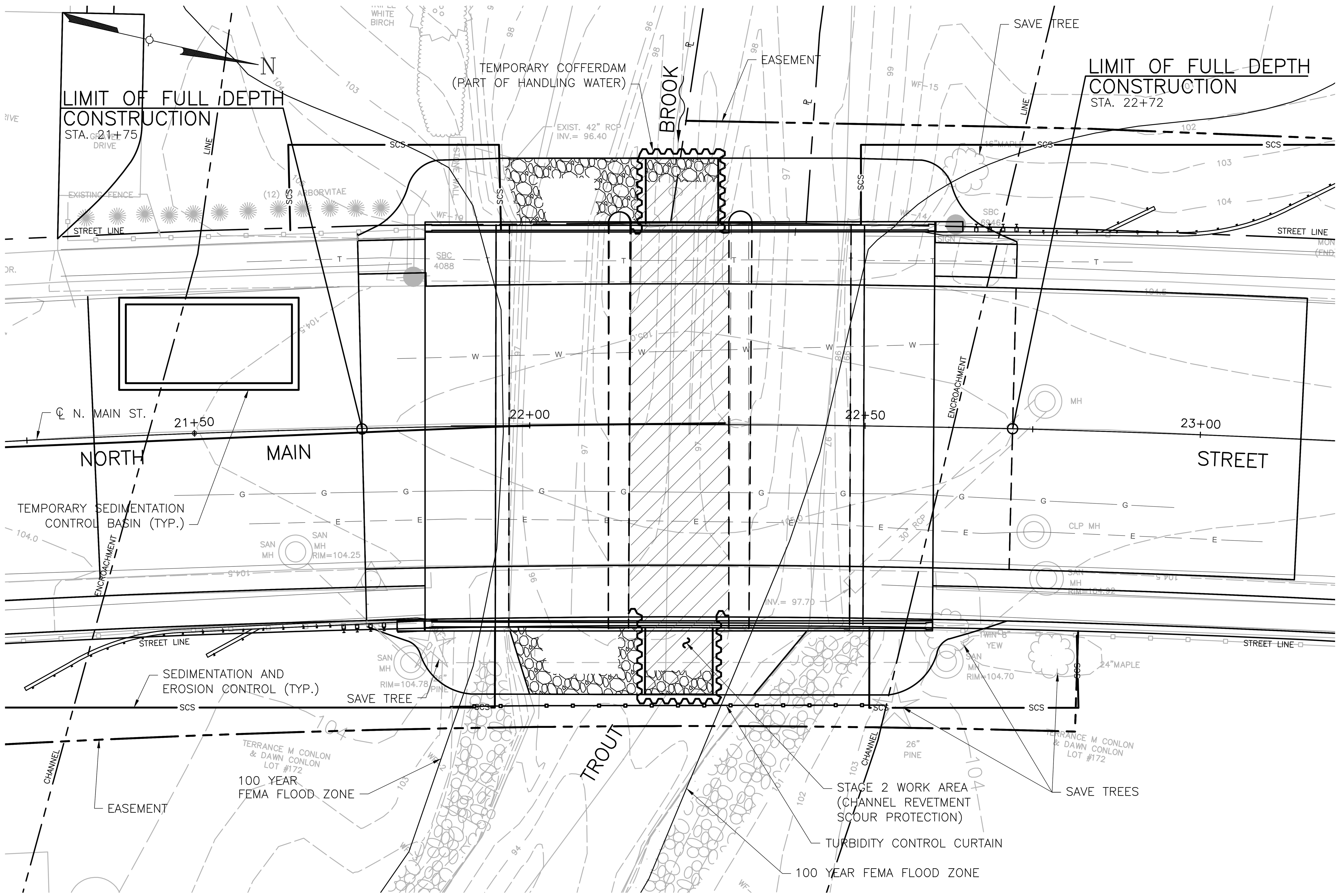
www.tectonicengineering.com

STAGE RI CHANNEL REVETMENT

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	29	0
Scale: AS SHOWN			



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

STAGE RII

SCALE: 1" = 10'-0"

CONSTRUCTION SEQUENCE

STAGE RII CHANNEL REVETMENT

1. INSTALL ALL APPLICABLE SEDIMENTATION CONTROL MEASURES INCLUDING THE CONSTRUCTION ENTRANCES.
2. RELOCATE THE TURBIDITY CURTAIN AND COFFERDAM AS INDICATED, FOR THE EXCAVATION OF THE STREAMBED MATERIAL IN THE DRY AND ALLOW FOR THE PLACEMENT OF THE SCOUR REVETMENT.
3. WATER FROM WITHIN THE COFFERDAM SHALL BE PUMPED TO A TEMPORARY SETTLING BASIN. PERIODICALLY MONITOR THE SETTLING BASIN DISCHARGE FOR SUSPENDED SOLIDS. ADJUST AS REQUIRED BY THE ENGINEER.
4. EXCAVATE THE STREAMBED WITHIN THE COFFERDAM, PROTECTING EXISTING STRUCTURES. THE EXCAVATED STREAMBED MATERIAL SHALL BE STOCKPILED ON SITE, WITHIN THE ALLOCATED EASEMENTS, TO ALLOW FOR DRAINING. PLACE FILTER FABRIC, OR OTHER MEANS, AROUND THE BASE OF THIS STOCKPILE TO ALLOW FOR CLEAR DRAINING. EXCESS MATERIAL THAT IS NOT INTENDED FOR REUSE SHALL BE HAULED AWAY, AFTER IT DRAINED, AS DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL IMMEDIATELY COMMENCE THE SUBSTRUCTURE REPAIR WORK UNDERSIDE THE ARCH, THE ABUTMENTS AND THE PIERS. REMOVE ALL DEBRIS FROM THE CHANNEL WORK AREA IMMEDIATELY.
6. INSTALL AND SECURE THE CHANNEL REVETMENT BLOCKS AS DIRECTED BY THE MANUFACTURER, AND AS DIRECTED BY THE ENGINEER.
7. PLACE THE 12 INCH NATIVE MATERIAL ON TOP OF THE CHANNEL REVETMENT.
8. REMOVE AND RELOCATE THE COFFERDAM INCLUDING THE TURBIDITY CURTAINS FOR THE NEXT STAGE AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9. RESTORE THE DISTURBED AREAS AS SOON AS POSSIBLE AND AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR IS ADVISED THAT THE ELEVATION OF THE COFFERDAM AS SHOWN IS TO PROVIDE MINIMAL PROTECTION TO THE WORK SITE. ALL EQUIPMENT AND UNSECURED MATERIAL SHALL BE READILY REMOVABLE FROM WITHIN THE CONFINES OF THE COFFERDAM PRIOR TO IMPENDING STORM EVENT, AS DIRECTED BY THE ENGINEER. CLAIMS DUE TO WEATHER EVENTS SHALL BE LIMITED TO TIME EXTENSIONS ON THE CONTRACT ONLY.
11. THE CONTRACTOR SHALL ADHERE TO ALL PERMITS REQUIREMENTS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE DEWATERING SYSTEM AND OPERATIONS, INCLUDING THE SEDIMENTATION BASIN.

LEGEND

- TEMPORARY CONSTRUCTION EASEMENT
- WORK AREA
- SCS — SEDIMENTATION CONTROL SYSTEM
- TEMPORARY COFFERDAM
- REVETMENT FOR SCOUR PROTECTION
- TEMPORARY SEDIMENTATION CONTROL BASIN
- TURBIDITY CONTROL CURTAIN

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
For Comment		
For Approval		
For Bid		
For Construction		

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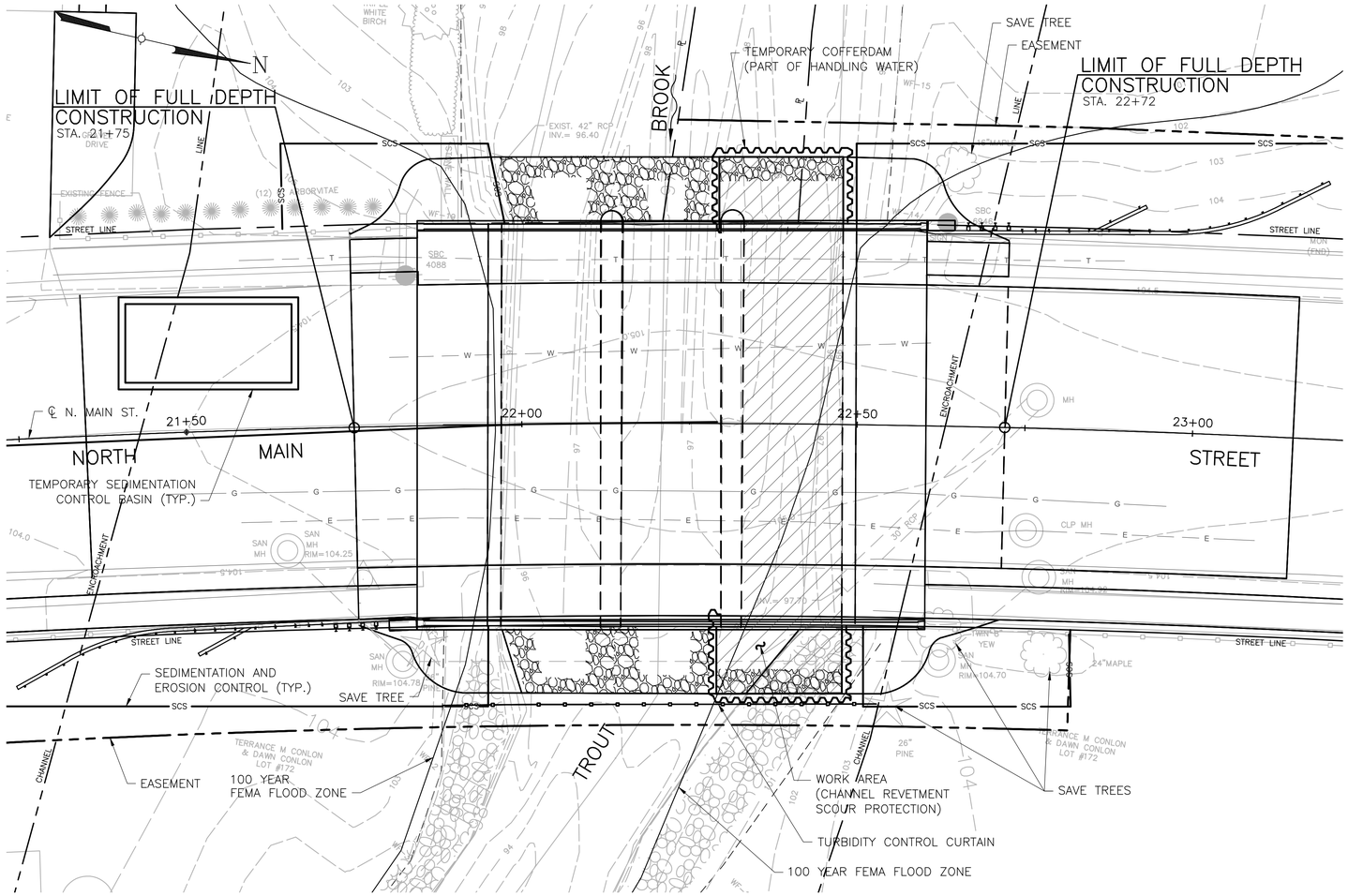
STAGE RII CHANNEL REVETMENT

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	30	0
Scale: AS SHOWN			



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

STAGE RIII

SCALE: 1" = 10'-0"

CONSTRUCTION SEQUENCE

STAGE RIII CHANNEL REVETMENT

1. INSTALL ALL APPLICABLE SEDIMENTATION CONTROL MEASURES INCLUDING THE CONSTRUCTION ENTRANCES.
2. RELOCATE THE TURBIDITY CURTAIN AND COFFERDAM AS INDICATED, FOR THE EXCAVATION OF THE STREAMBED MATERIAL IN THE DRY AND ALLOW FOR THE PLACEMENT OF THE SCOUR REVETMENT.
3. WATER FROM WITHIN THE COFFERDAM SHALL BE PUMPED TO A TEMPORARY SETTLING BASIN. PERIODICALLY MONITOR THE SETTLING BASIN DISCHARGE FOR SUSPENDED SOLIDS. ADJUST AS REQUIRED BY THE ENGINEER.
4. EXCAVATE THE STREAMBED WITHIN THE COFFERDAM, PROTECTING EXISTING STRUCTURES. THE EXCAVATED STREAMBED MATERIAL SHALL BE STOCKPILED ON SITE, WITHIN THE ALLOCATED EASEMENTS, TO ALLOW FOR DRAINING. PLACE FILTER FABRIC, OR OTHER MEANS, AROUND THE BASE OF THIS STOCKPILE TO ALLOW FOR CLEAR DRAINING. EXCESS MATERIAL THAT IS NOT INTENDED FOR REUSE SHALL BE HAULED AWAY, AFTER IT DRAINED, AS DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL IMMEDIATELY COMMENCE THE SUBSTRUCTURE REPAIR WORK UNDERSIDE THE ARCH , THE ABUTMENTS AND THE PIERS. REMOVE ALL DEBRIS FROM THE CHANNEL WORK AREA IMMEDIATELY.
6. INSTALL AND SECURE THE CHANNEL REVETMENT BLOCKS AS DIRECTED BY THE MANUFACTURER, AND AS DIRECTED BY THE ENGINEER.
7. REMOVE AND RELOCATE THE COFFERDAM INCLUDING THE TURBIDITY CURTAINS FOR THE NEXT STAGE AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
8. PLACE THE 12 INCH NATIVE MATERIAL ON TOP OF THE CHANNEL REVETMENT.
9. RESTORE THE DISTURBED AREAS AS SOON AS POSSIBLE AND AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR IS ADVISED THAT THE ELEVATION OF THE COFFERDAM AS SHOWN IS TO PROVIDE MINIMAL PROTECTION TO THE WORK SITE. ALL EQUIPMENT AND UNSECURED MATERIAL SHALL BE READILY REMOVABLE FROM WITHIN THE CONFINES OF THE COFFERDAM PRIOR TO IMPENDING STORM EVENT, AS DIRECTED BY THE ENGINEER.
11. CLAIMS DUE TO WEATHER EVENTS SHALL BE LIMITED TO TIME EXTENSIONS ON THE CONTRAC ONLY.
12. THE CONTRACTOR SHALL ADHERE TO ALL PERMITS REQUIREMENTS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE DEWATERING SYSTEM AND OPERATIONS, INCLUDING THE SEDIMENTATION BASIN.

LEGEND

- TEMPORARY CONSTRUCTION EASEMENT
- WORK AREA
- SCS — SEDIMENTATION CONTROL SYSTEM
- TEMPORARY COFFERDAM
- REVETMENT FOR SCOUR PROTECTION
- TEMPORARY SEDIMENTATION CONTROL BASIN
- TURBIDITY CONTROL CURTAIN

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: H.H.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

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STAGE RIII CHANNEL REVETMENT

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	31	0
Scale: AS SHOWN			

W1 – SERIES

W1–1L (L) W1–1R (R)

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(L)	36	80–9406	1
(R)	36	80–9405	1
(L)	48	80–9456	2
(R)	48	80–9455	2

W1–2L (L) W1–2R (R)

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(L)	36	80–9428	1
(R)	36	80–9427	1
(L)	48	80–9468	2
(R)	48	80–9467	2

W1–4L (L) W1–4R (R)

	SIZE (INCHES)	CONN. D.O.T. #	POSTS	
(L)	36	80–9432	1	
(R)	36	80–9431	1	
(L)	48	80–9452	2	
(R)	48	80–9451	2	

W1–6 (L OR R)

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36 X 18	80–9422	1
48 X 24	80–9424	2

W1–7

SIZE (INCHES)	CONN. D.O.T. #	POSTS
48 X 24	80–9407	2

W1–8

SIZE (INCHES)	CONN. D.O.T. #	POSTS
12 X 18	80–9402	1
24 X 30	80–9403	1
30 X 36	80–9404	1

W3–W6 SERIES

W3–1 STOP AHEAD

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9808	1

W4–2 (L) (R)

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(L)	48	80–9918	2
(R)	48	80–9917	2

W6–3

SIZE (INCHES)	CONN. D.O.T. #	POSTS
48	80–9945	2

W8–W9 SERIES

W8–1 BUMP

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9901	1
48	80–9902	2

BUMP AHEAD

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9801	1
48	80–9802	2

W9–2 LANE ENDS MERGE LEFT (L) LANE ENDS MERGE RIGHT (R)

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(L)	48	80–9910	2
(R)	48	80–9911	2

W13 – SERIES

W13–1 00 M.P.H.

SIZE (INCHES)	CONN. D.O.T. #	POSTS
18 X 18	80–9568	1
24 X 24	80–9569	1

REDUCE SPEED TO 00 MPH

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9506	1
48	80–9508	2

W20 – SERIES

ROAD WORK AHEAD

SIZE (INCHES)	CONN. D.O.T. #	POSTS
30	80–9602	1
36	80–9603	1
48	80–9604	2

W20–1 ROAD WORK 0000 FT

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9514	1
48	80–9515	2

W20–2 DETOUR 1000 FT

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9805	1
48	80–9806	2

W20–4 ONE LANE ROAD AHEAD

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9834	1
48	80–9835	2

W20–7a

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9803	1
48	80–9804	2

CROSSOVER 1000 FT AHEAD

SIZE (INCHES)	CONN. D.O.T. #	POSTS
48	80–9827	2

W20–5L LEFT LANE CLOSED 1500 FT (1) LEFT LANE CLOSED AHEAD (2)

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(1)	48	80–9841	2
(2)	48	80–9847	2

LEFT TWO LANES CLOSED 1500 FT (1) LEFT TWO LANES CLOSED AHEAD (2)

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(1)	48	80–9831	2
(2)	48	80–9837	2

SLOW MOVING TRUCKS AHEAD

SIZE (INCHES)	CONN. D.O.T. #	POSTS
96 X 48	80–9815	

W20–5R RIGHT LANE CLOSED 1500 FT (1) RIGHT LANE CLOSED AHEAD (2)

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(1)	48	80–9842	2
(2)	48	80–9848	2

RIGHT TWO LANES CLOSED 1500 FT (1) RIGHT TWO LANES CLOSED AHEAD (2)

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(1)	48	80–9832	2
(2)	48	80–9838	2

(A) AHEAD
(B) 1/2 MILE
(C) 1 MILE

SIZE (INCHES)	CONN. D.O.T. #	POSTS
30 X 8	80–9829	

W21 – SERIES

W21–6 SURVEY CREW

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9607	1

M4–9B DETOUR
VARIABLE ARROW

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36 X 24	80–9703	1

R9–9 SIDEWALK CLOSED

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36 X 18	80–9076	1

COPY & BORDER – BLACK
BACKGROUND – WHITE

W22 – SERIES

W22–1 BLASTING ZONE 1000 FT

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9620	1
48	80–9625	2

W22–2 TURN OFF 2-WAY RADIO

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36 X 30	80–9624	1
42 X 36	80–9623	2

W22–3 END BLASTING ZONE

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36 X 30	80–9622	1
42 X 36	80–9621	2

(VARIABLE LEGEND)

SIZE (INCHES)	CONN. D.O.T. #	POSTS
60 X 10	80–9913	
96 X 18	80–9914	

SHOULDER CLOSED

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9958	
48	80–9959	2

USE SHOULDER

SIZE (INCHES)	CONN. D.O.T. #	POSTS
48	80–9956	2

STAY IN LINE

SIZE (INCHES)	CONN. D.O.T. #	POSTS
48	80–9951	2

BLANK OR VARIABLE LEGEND

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9933	1
48	80–9934	2

CROSS OVER

SIZE (INCHES)	CONN. D.O.T. #	POSTS
48	80–9954	2

G20 – SERIES

G20–2a END ROAD WORK

SIZE (INCHES)	CONN. D.O.T. #	POSTS
48 X 24	80–9612	2

WORK AREA BE PREPARED TO STOP

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36	80–9711	1
48	80–9712	2

NEXT 0 MILES

SIZE (INCHES)	CONN. D.O.T. #	POSTS
72 X 14	80–9720	

BUSINESS ENTRANCE

SIZE (INCHES)	CONN. D.O.T. #	POSTS
36 X 24	80–4601	1

M4 – SERIES

M4–8 DETOUR

SIZE (INCHES)	CONN. D.O.T. #	POSTS
24 X 12	80–9707	

M4–10 (L) DETOUR (R) DETOUR

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(L)	48 X 18	80–9701	2
(R)	48 X 18	80–9702	2

R1 – SERIES

R1–1 STOP *
BACKGROUND – RED
LEGEND – SILVER

AREA S.F.	SIZE (INCHES)	CONN. D.O.T. #	POSTS	
5.19	30	31–0552	1	
13.30	48	31–0557	2	

R1–2 YIELD
BACKGROUND – SILVER
LEGEND – RED

AREA S.F.	SIZE (INCHES)	CONN. D.O.T. #	POSTS
3.9	36	31–0523	1
10.83	60	31–0528	2

R11–4

ROAD CLOSED TO THRU TRAFFIC

SIZE (INCHES)	CONN. D.O.T. #	POSTS
60 X 30	80–9081	2

ROAD WORK AHEAD FINES DOUBLED

SIZE (INCHES)	CONN. D.O.T. #	POSTS
48 X 42	31–1906	2
60 X 54	31–1907	2B
72 X 60	31–1908	2B

16– SERIES

CONSTRUCTION AHEAD
ROAD USE RESTRICTED
STATE LIABILITY LIMITED
GENERAL STATUTES SEC 13a–115, 13a–145
COMMISSIONER OF TRANSPORTATION

CONSTRUCTION AHEAD
SIDEWALK USE RESTRICTED
STATE LIABILITY LIMITED
GENERAL STATUTES SEC 13a–115, 13a–145
COMMISSIONER OF TRANSPORTATION

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
16–M	30 X 24	80–1613	1
16–H	60 X 42	80–1608	2
16–E	84 X 60	80–1605	2B

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
16–S	48 X 30	80–1619	2

R4 – SERIES

R4–7
BACKGROUND – SILVER
LEGEND – BLACK

SIZE (INCHES)	CONN. D.O.T. #	POSTS
24 X 30	31–1526	1

R11– SERIES

R11–2 ROAD CLOSED

SIZE (INCHES)	CONN. D.O.T. #	POSTS
48 X 30	80–9080	2

R11–3a ROAD CLOSED 00 MILES AHEAD LOCAL TRAFFIC ONLY

SIZE (INCHES)	CONN. D.O.T. #	POSTS
60 X 30	80–9077	2

R11–3b BRIDGE CLOSED 00 MILES AHEAD LOCAL TRAFFIC ONLY

SIZE (INCHES)	CONN. D.O.T. #	POSTS
60 X 30	80–9078	2

COPY & BORDER – BLACK PLAIN
BACKGROUND – SILVER REFLECTORIZED

BRIDGE OUT

SIZE (INCHES)	CONN. D.O.T. #	POSTS
48 X 30	80–9082	2

E5– SERIES

E5–1 EXIT (L) EXIT (R)
COPY & BORDER – SILVER REFLECTORIZED
BACKGROUND – GREEN REFLECTORIZED

	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(L)	72 X 60	51–6150L	2B
(R)	72 X 60	51–6150R	2B

STOP–SLOW PADDLE

SIDE A * STOP
BACKGROUND – RED
COPY & BORDER – SILVER

SIDE B * SLOW
BACKGROUND – ORANGE
COPY & BORDER – BLACK PLAIN

SIZE (INCHES)	CONN. D.O.T. #	POSTS
19	80–9950	PADDLE

NOTES:

1. ALL POSTS NOTED ARE FOR LONG TERM INSTALLATION (SEE STD. SHEET "TYPICAL SIGN POSTS & SIGN MOUNTING DETAILS"),
2. FOR TEMPORARY SUPPORTS SEE STD. SHEET "TYPICAL CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES."
3. FOR SPECIFIC SIGN DESIGN, CONTACT CONN. D.O.T., DIVISION OF TRAFFIC ENGINEERING. FOR BOLT HOLE PATTERN, REFER TO F.H.W.A. PUBLICATION "STANDARD HIGHWAY SIGNS" AS SPECIFIED IN THE MUTCD.
4. SIGNS OF DIFFERENT DIMENSIONS TO BE ERECTED ON THE SAME POSTS MAY REQUIRE SPECIAL BOLT HOLE PATTERNS.
5. WHERE (0–00) SHOWN ON SIGN–INDICATES VARIABLE NUMBER(S) LEGEND.
6. COLORS OF SIGNS (UNLESS OTHERWISE SPECIFIED)
   LEGEND – BLACK PLAIN
   BACKGROUND – ORANGE REFLECTORIZED
   COLOR & MATERIALS SHALL CONFORM TO STATE SPECIFICATIONS
7. MATERIALS:
   SIGNS AND THEIR PORTABLE SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL–3).
   ALUMINUM THICKNESS FOR POST MOUNTED SIGNS SHALL BE .100 EXCEPT SIGN NOS. 80–9815, 80–9926, 80–9927, 80–9925, & 51–6150 (L OR R) WHICH SHALL BE .125, PLYWOOD THICKNESS FOR POST MOUNTED SIGNS SHALL BE ?" EXTERIOR GRADE A–C OR BETTER.
   SIGN BLANKS SHALL HAVE ONE COAT OF PRIMER PAINT PRIOR TO APPLICATION OF REFLECTORIZATION AND COPY.
8. ON RI–SERIES SIGN THE LEGEND "S.T.C." SHALL APPEAR.
9. POSTS – TYPE A (EXCEPT WHERE NOTED WITH A "B" FOR TYPE B).
10. ALL CONSTRUCTION SIGNS TO BE PAID FOR UNDER THE CONSTRUCTION SIGNS ITEM IN THE CONTRACT.

* BRIGHT WIDE ANGLE RETROREFLECTIVE SHEETING.

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: D.S.	Drawn by: K.R.F.	Checked by: J.A.S.	
Purpose	Released by		Date
○ For Comment			
○ For Approval			
○ For Bid			
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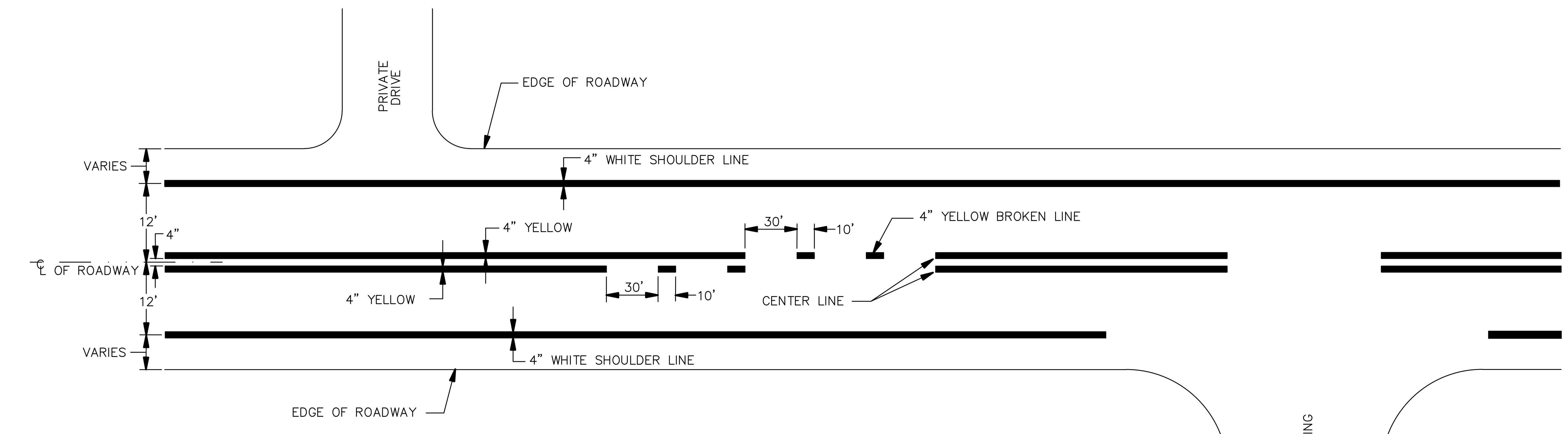
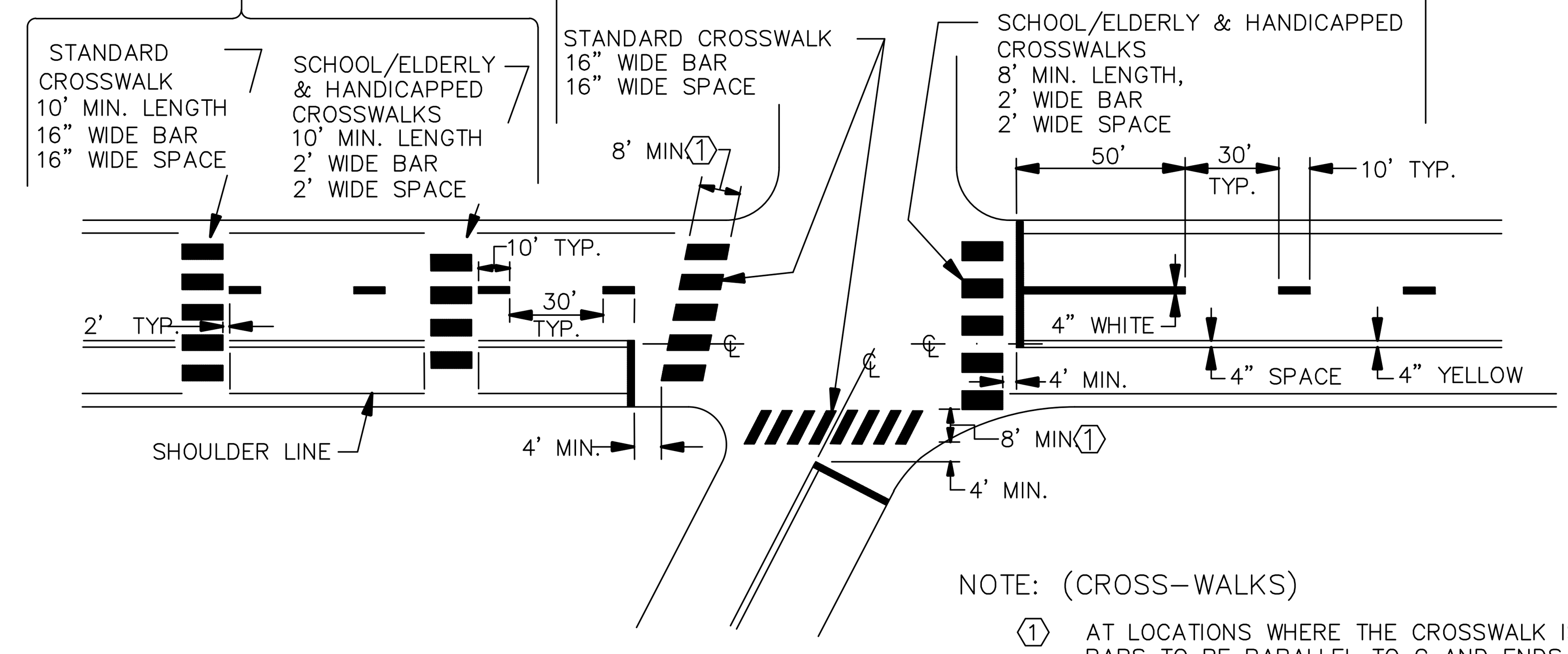
TYPICAL SIGNING DETAILS

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3–02–15	6550.01	32	0
Scale: AS SHOWN			



PAVEMENT MARKINGS
CENTERLINE AND SHOULDER LINE



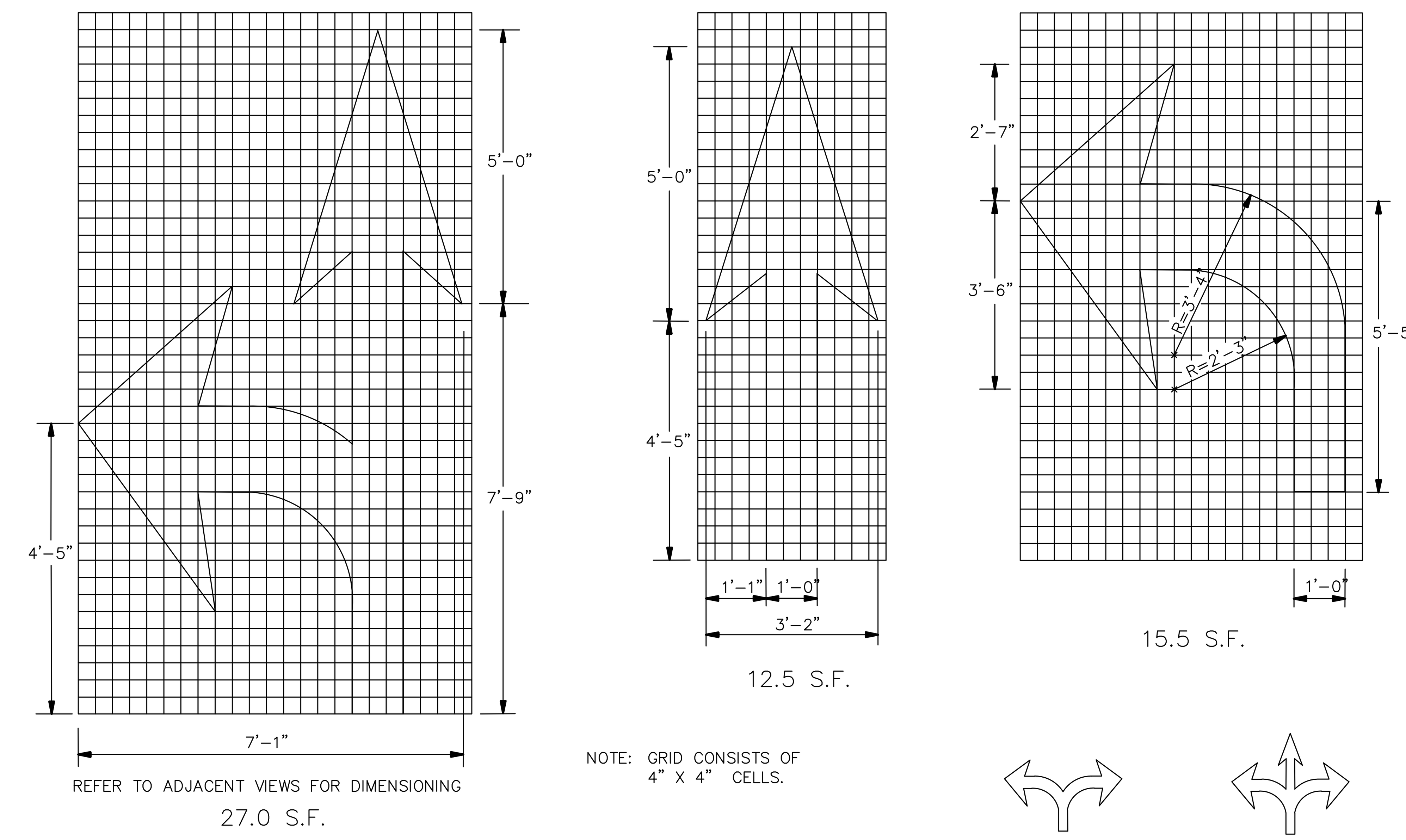
NOTE: (STOP-BARS).

1. STOP BARS TO BE 12" MIN. UNLESS OTHERWISE NOTED ON PLANS.
2. STOP BARS TO BE MARKED A MINIMUM OF 4' IN ADVANCE OF NEAREST EDGE OF CROSSWALK.
3. IN ABSENCE OF MARKED CROSSWALK THE STOP BAR SHALL BE PLACED AT THE DESIRED STOPPING POINT. IN NO CASE MORE THAN 30' OR LESS THAN 5' FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY AND 90° TO THE CENTERLINE OF ROADWAY.
4. THE STOP BAR SHALL ORDINARILY BE PLACED IN LINE WITH THE STOP SIGN. HOWEVER, IF THE STOP SIGN CANNOT BE LOCATED EXACTLY WHERE VEHICLES ARE EXPECTED TO STOP, THE STOP BAR SHOULD BE PLACED AT THE STOPPING POINT.
5. STOP BARS AND CENTERLINE (WHEN SIDE STREET WIDTHS ARE 16" OR MORE) ARE TO BE MARKED ON SIDE STREETS WITHIN THE LIMITS OF CONSTRUCTION UNLESS, OTHERWISE INDICATED, OR AS DIRECTED BY THE ENGINEER.

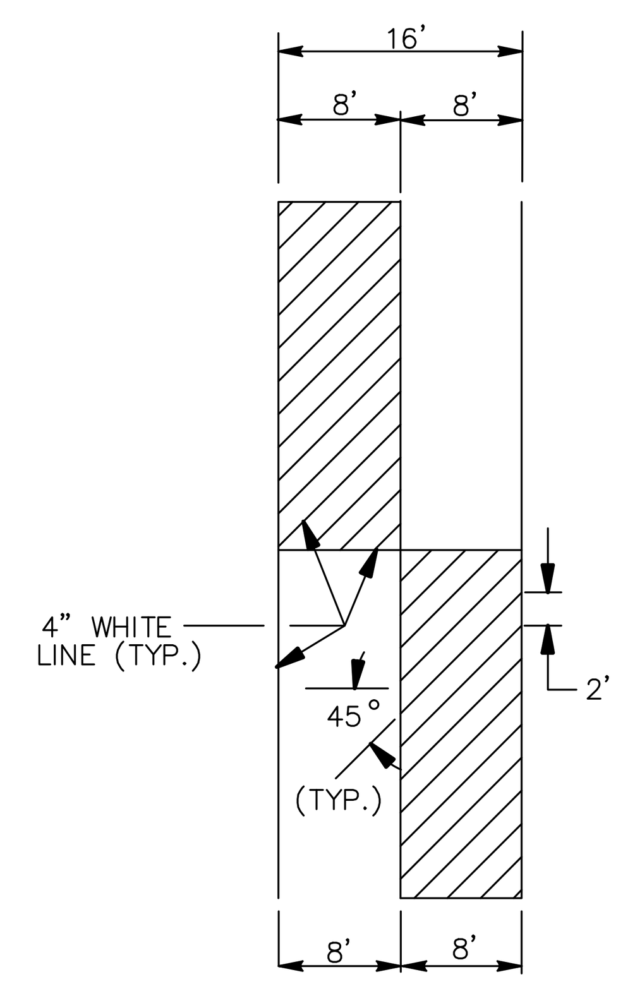
NOTE: (CROSS-WALKS)

1. AT LOCATIONS WHERE THE CROSSWALK IS SKEWED, BARS TO BE PARALLEL TO ℄ AND ENDS OF BARS TO BE PARALLEL. THE LENGTH OF THE BARS WILL VARY DEPENDING ON THE ANGLE OF SKEW.
2. SCRAMBLE WALKS TO BE MARKED WITH ONE 24" WIDE LINE ACROSS EACH APPROACH.
3. BARS SHALL NORMALLY BE NO CLOSER THAN 2' FROM CURB LINE/EDGE OF ROAD. WHERE EXCESS SPACE MAY DEVELOP THIS DISTANCE MAY BE DECREASED TO 1'.
4. ONLY FULL LENGTH BARS ARE TO BE INSTALLED AT CORNERS.

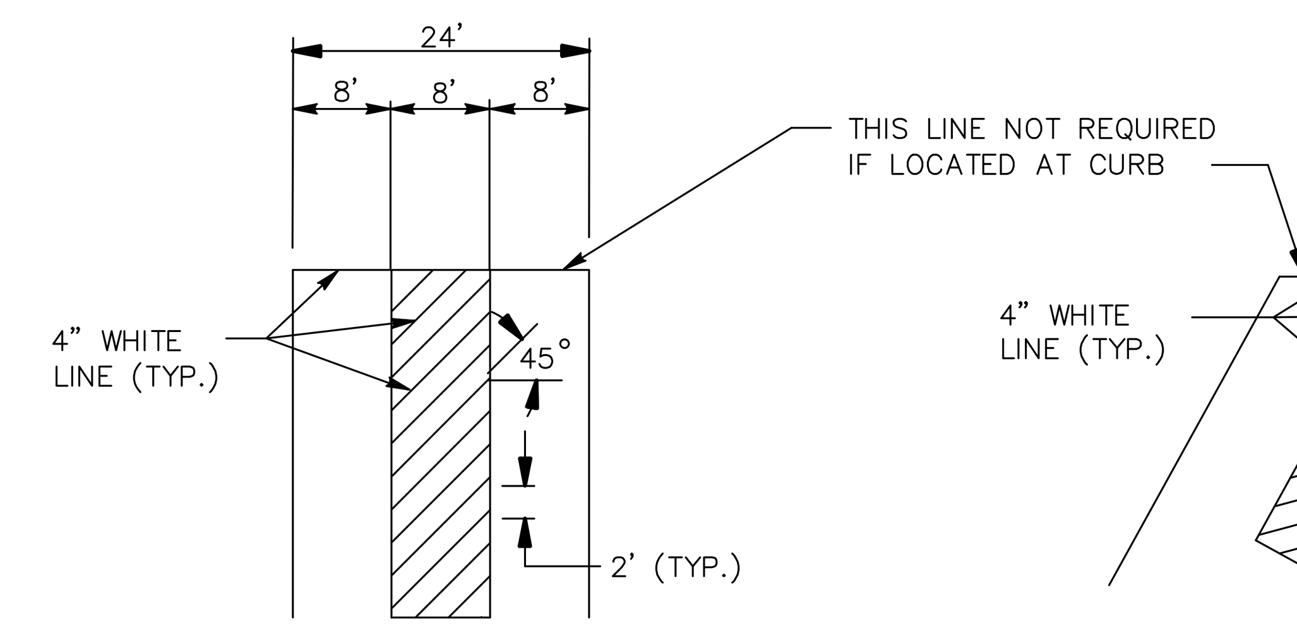
31-0629(L)
31-0629(R)
31-0629(D)
31-0629(P) NO ARROW



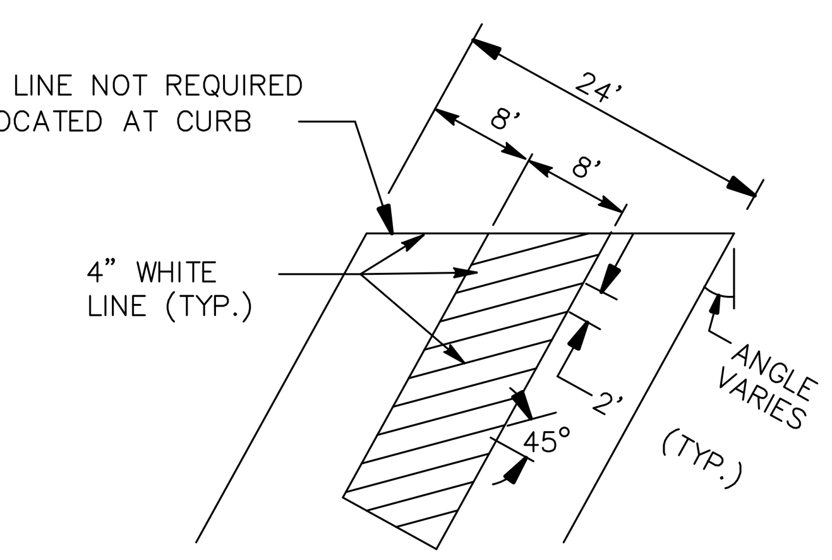
PAVEMENT ARROW DETAILS
(WHITE)
ARROWS TO BE CENTERED IN TRAVEL LANE



(PIGGY BACK STYLE)

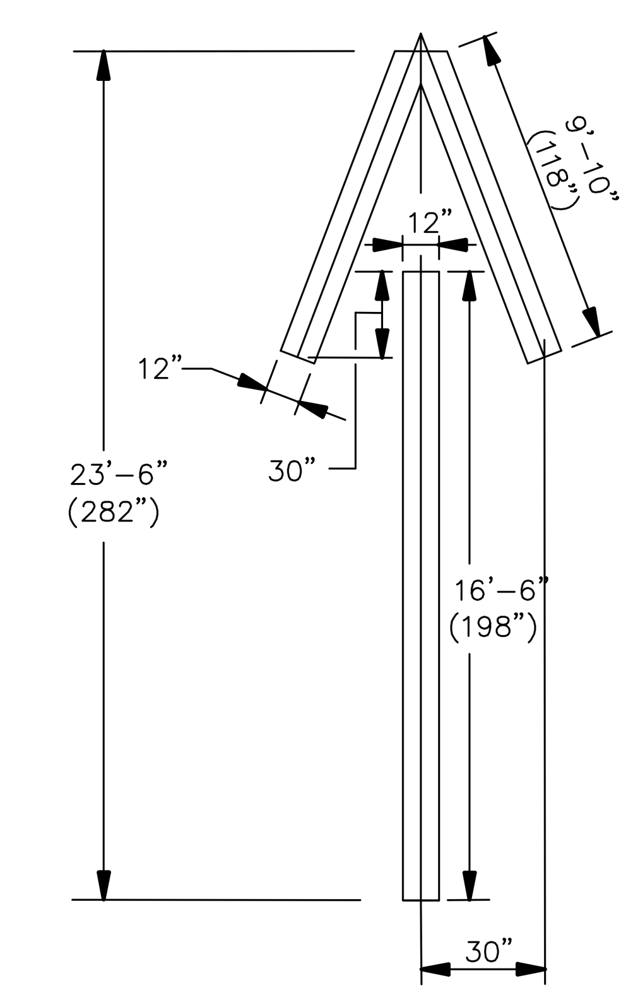


(SIDE BY SIDE STYLE)
(SHARED AISLE)

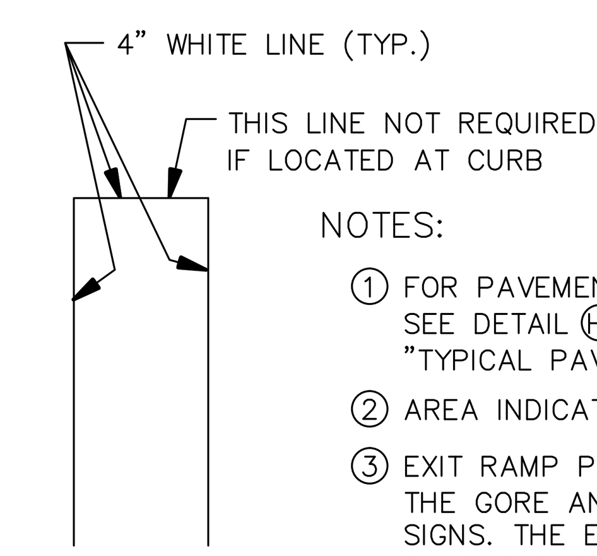


(ANGLED SIDE BY SIDE STYLE)
(SHARED AISLE)

PARKING STALLS FOR HANDICAPPED



EXIT RAMP PAVEMENT ARROW
(WHITE)

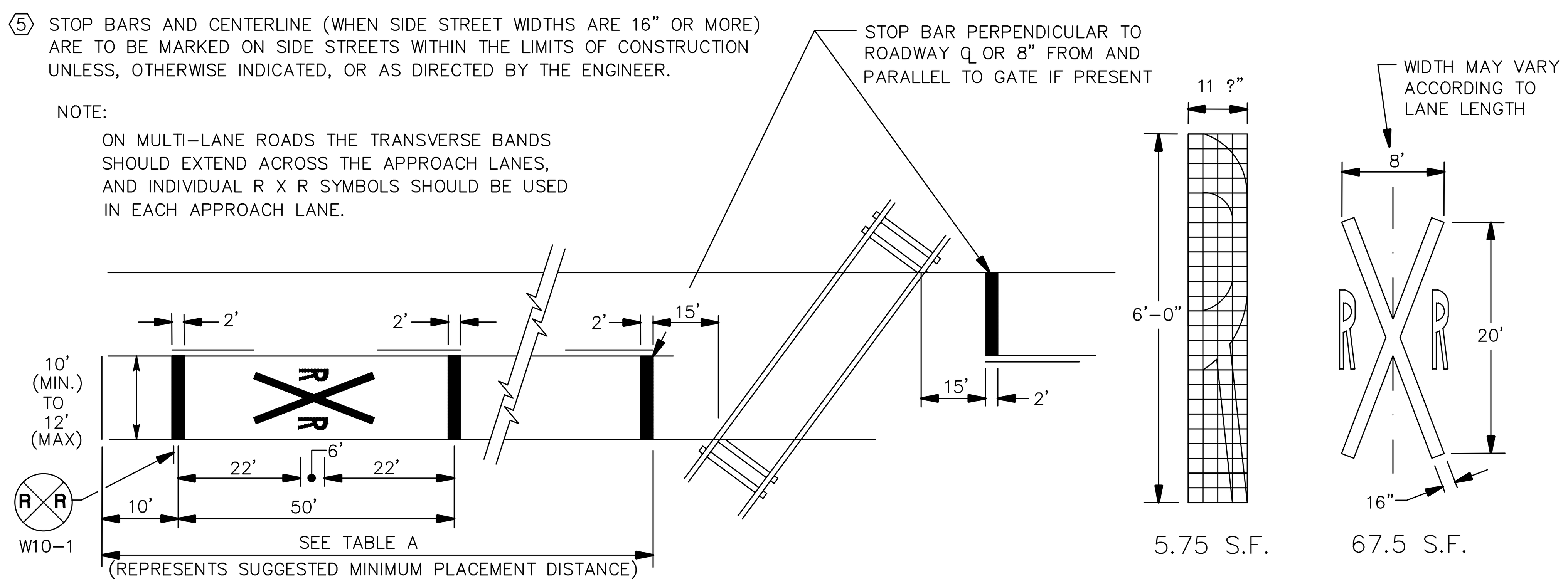


STANDARD
PARKING STALL

NOTES:

1. FOR PAVEMENT MARKINGS ON A CLIMBING LANE SEE DETAIL (H) ON THE DETAIL SHEET ENTITLED "TYPICAL PAVEMENT MARKINGS FOR DIVIDED HIGHWAYS".
2. AREA INDICATED IS APPROXIMATE.
3. EXIT RAMP PAVEMENT ARROW SHOULD BE BETWEEN THE GORE AND THE FIRST SET OF WRONG WAY SIGNS. THE EXACT LOCATION TO BE DETERMINED BY THE ENGINEER FOR THE OPTIMUM VISIBILITY (CONSIDER RAMP CURVATURE AND PROFILE).
4. EXIT RAMP PAVEMENT ARROW TO BE OMITTED IF LANE USE CONTROLS ARE USED.

NOTE:
ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS THE APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.



PAVEMENT MARKINGS AT RAILROAD GRADE CROSSINGS

TABLE A

POSTED OR 85 PERCENTILE SPEED M.P.H.	DISTANCE (FT.)
20	✳
25	✳
30	100
35	150
40	225
45	300
50	375
55	450
60	550
65	650

✳ NO SUGGESTED MINIMUM DISTANCE, AT THESE SPEEDS, SIGN LOCATION DEPENDS ON PHYSICAL CONDITIONS AT SITE, HOWEVER

0 1 2 3
ORIGINAL SIZE IN INCHES

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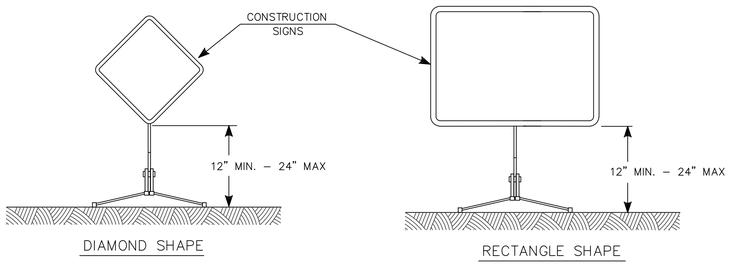
TYPICAL PAVEMENT MARKINGS

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

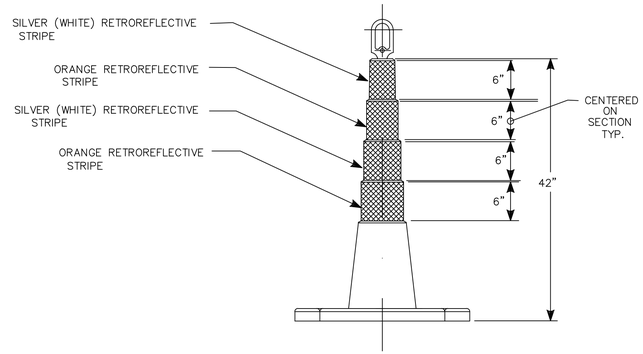
Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	33	0
Scale AS SHOWN			



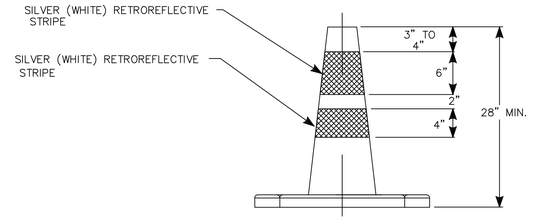
CONSTRUCTION SIGNS

NOTES FOR PORTABLE SIGN SUPPORTS:

1. SIGNS AND THEIR PORTABLE SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL–3) AND THE LATEST EDITION OF THE MUTCD.
2. MOUNTING HEIGHT OF SIGNS SHALL BE A MINIMUM OF 12" AND A MAXIMUM OF 24". SIGNS SHALL BE MOUNTED HIGHER AS NEEDED TO MEET FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.
3. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY SUPPORT DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
4. PORTABLE SIGN SUPPORTS SHALL BE STABILIZED IN A MANNER THAT WILL NOT AFFECT THEIR COMPLIANCE WITH NCHRP REPORT 350 (TL–3).



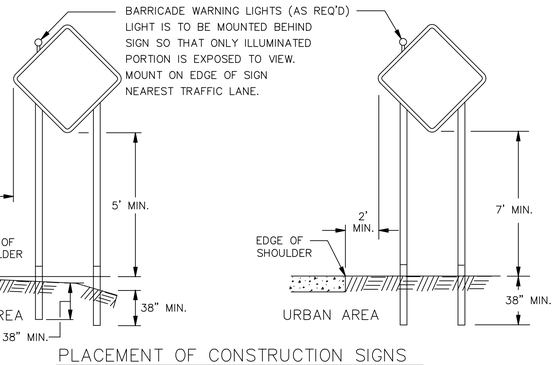
42" TRAFFIC CONE



TRAFFIC CONE

NOTES:

1. TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 AND THE LATEST EDITION OF THE MUTCD.
2. CONES SHALL BE PREDOMINATELY FEDERAL ORANGE IN COLOR AND RETROREFLECTIVE AS REQUIRED IN THE SPECIFICATIONS.
3. IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
4. IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
5. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.



PLACEMENT OF CONSTRUCTION SIGNS

TYPICAL LONG TERM INSTALLATION

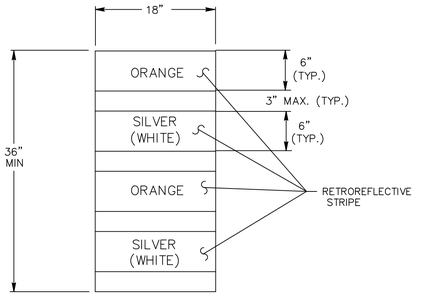
NOTES:

SUPPORTS SHALL BE METAL SIGN POSTS AND HAVE BREAK–AWAY FEATURES. SEE TYPICAL SHEETS:

"TYPICAL SIGN SUPPORT AND SIGN PLACEMENT DETAILS–GORE EXIT SIGN"

"TYPICAL METAL SIGN POSTS AND SIGN MOUNTING DETAILS"

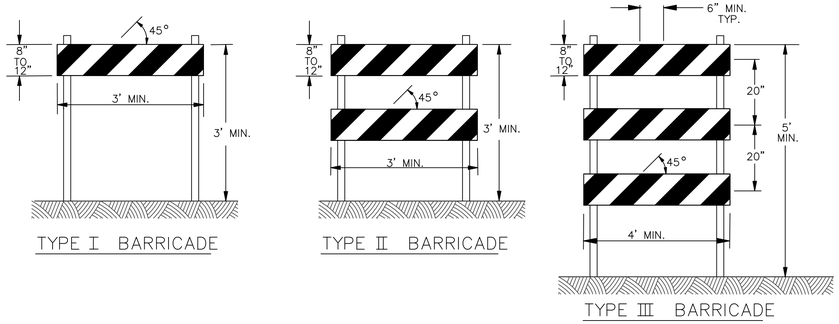
"TYPICAL SQUARE METAL SIGN POSTS AND SIGN MOUNTING DETAILS"



TRAFFIC DRUM
FRONT VIEW

NOTES:

1. TRAFFIC DRUM SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 AND THE LATEST EDITION OF THE MUTCD.
2. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY DRUM DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
3. THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
4. THE SECTIONS OF DRUMS NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.



CONSTRUCTION BARRICADES

NOTES:

1. CONSTRUCTION BARRICADES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL–3) AND THE LATEST EDITION OF THE MUTCD.
2. MARKINGS FOR BARRICADE RAILS SHALL BE ALTERNATE ORANGE AND WHITE STRIPES SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS. 6" WIDE STRIPES SHALL BE USED.
3. THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS. RAILS FOR TYPE I AND TYPE II BARRICADES SHALL BE RETROREFLECTIVE ON BOTH SIDES. WHERE TRAFFIC PASSES ONLY IN ONE DIRECTION OF TRAVEL, ONLY THE SIDE FACING TRAFFIC SHALL BE RETROREFLECTIVE.
4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY BARRICADE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
5. CORNERS OF BARRICADE RAILS SHALL BE ROUNDED.

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: D.S.	Drawn by: K.R.F.	Checked by: J.A.S.	
Purpose	Released by		Date
○ For Comment			
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○ For Bid			
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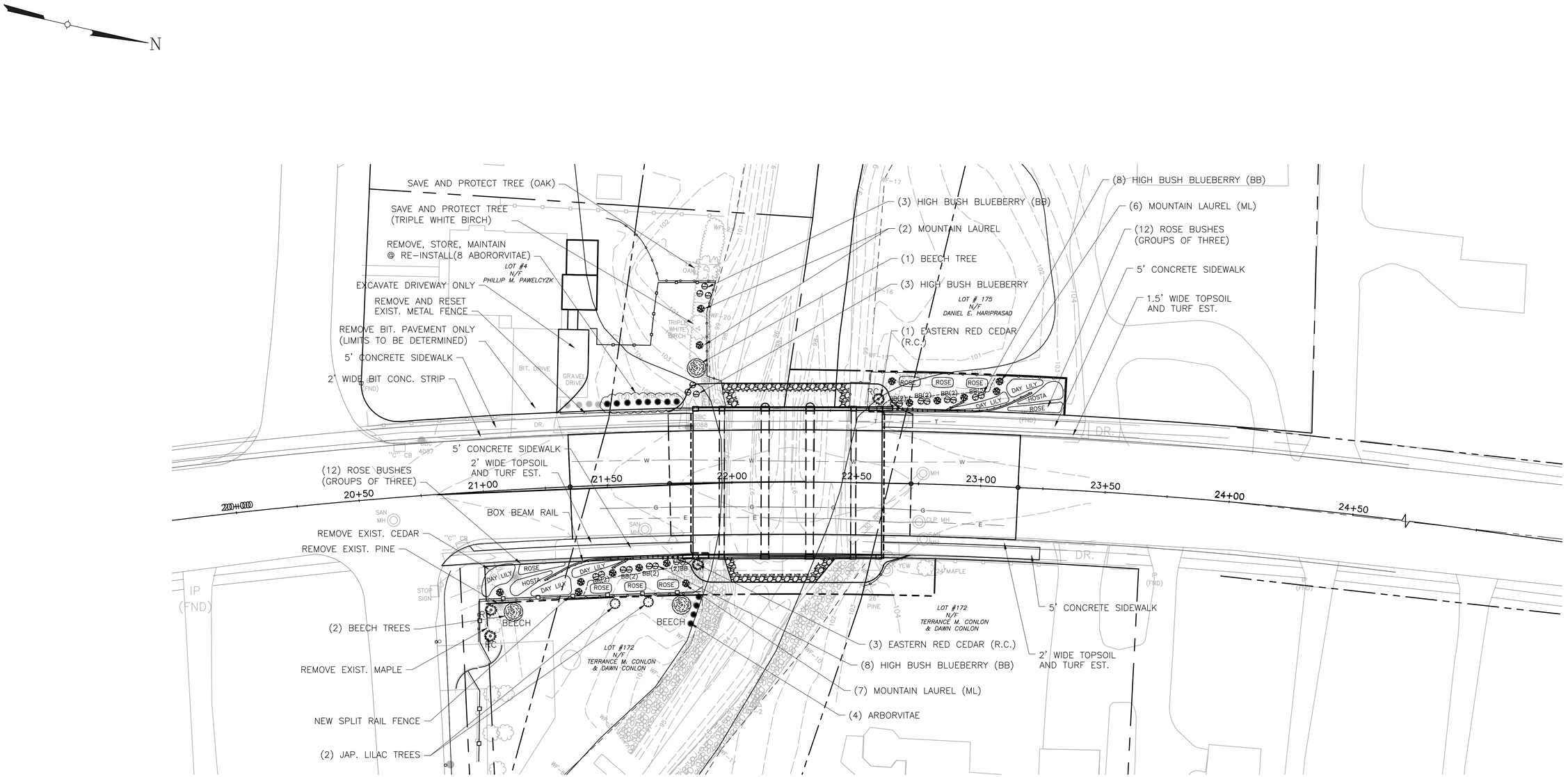
CONSTRUCTION SIGN SUPPORTS

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3–02–15	6550.01	34	0
Scale: AS SHOWN			



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

PLAN

SCALE: 1" = 10'–0"

PLANTING TABLE

Botanical name	Common name	Size	Count
Hemerocallis "Stella D'Oro"	Stella D'Oro Daylily	1 Gal. Container	46
Hosta Spp.	(Plantain Lilly)	1 Gal. Container	14
Juniperus Virginiana	Eastern Red Cedar	6'-8' Ht. B.B. Ea.	4
Vaccinium Corymbosum	Highbush Blueberry	3'-0"- 4'-0" Ht. B.B. Ea.	22
Thuja Occidentalis	Arborvitae	Ea.	4
Kalmia Latifolia 'Raspberry Glow'	Raspberry Glow Mountain Laurel	3'-0"- 4'-0" Ht. B.B. Ea.	15
Fagus Sylvatica 'River's Purple Beech'	Copper Beech	2"-2.5" Cal., B.B.	3
Syringa Reticulata	Japanese Tree Lilac	15'-0" To 25'0" Ht. B.B.	2
Rosa Var. NOA83100B	'Flower Carpet® Scarlet'	1'-3" Ht. B.B.	53
Save and Reset Thuja Occidentalis	Arborvitae	Ea.	8
	Pine Bark Mulch	S.Y.	350
	Turf Establishment - Lawn	S.Y.	290

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
○ For Comment		
○ For Approval		
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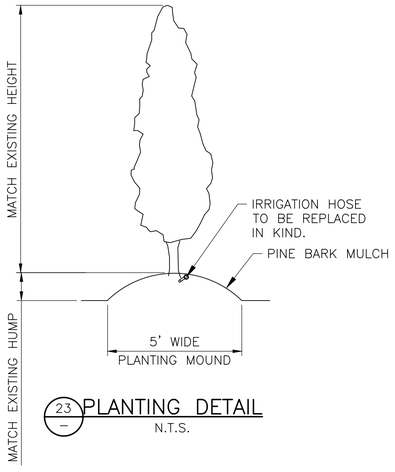
LANDSCAPE PLAN

REHABILITATION OF BRIDGE NO. 03651 NORTH MAIN STREET OVER WEST BRANCH OF TROUT BROOK WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	35	0

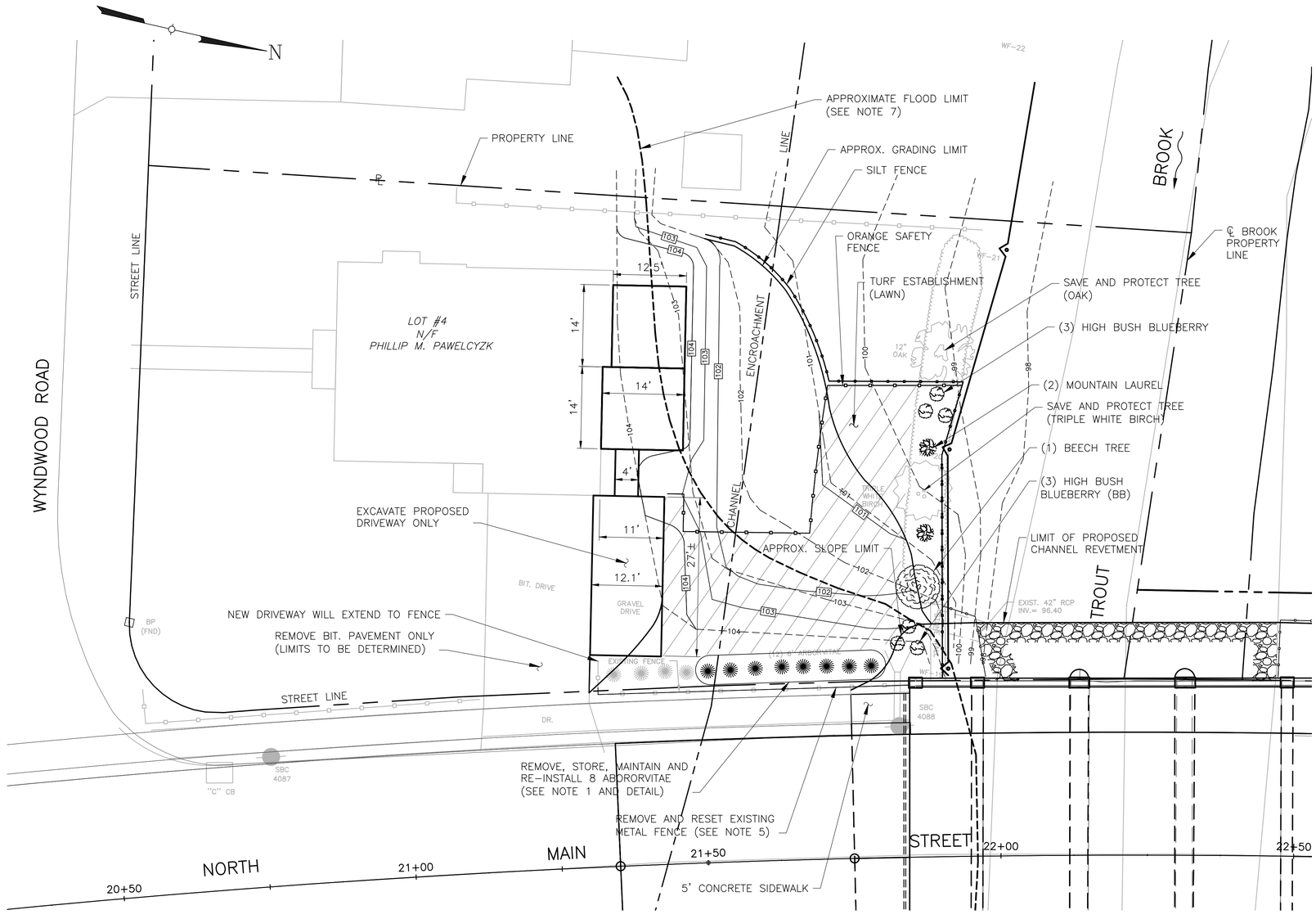
Scale 1" = 10'–0"



23 — PLANTING DETAIL
N.T.S.

PLANTING TABLE

Botanical name	Common name	Size	Count
Phillip Pawelcyzk Property			
VACCINIUM corymbosum	Highbush Blueberry	Container: #3	3+3
KALMIA latifolia 'Raspberry Glow' Or approved equal	'Raspberry Glow' Raspberry Glow Mountain Laurel	Container: #3	2
FAGUS sylvatica 'River's Purple Beech' aka Copper Beech	Copper Beech	B&B Cal: 2-2 1/2"	1
THUJA occidentalis	Arborvitae	Reset Existing	8
	Pine Bark Mulch (shredded)	34'*8'*4"	3.4 CY
	Turf Establishment - Lawn	80'*15'	133 SY



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

PLAN
SCALE: 1" = 10'-0"

NOTES:

1. IF THE RELOCATED ARBORVITAE TREES DIE THE CONTRACTOR SHALL REPLACE THE TREES IN KIND.
2. LAWN SEED MIX 950019A TO BE PLACED USING HYDRO-SEED METHOD.
3. PLANTING MOUND TO BE COVERED WITH PINE BARK MULCH (4" DEEP, SHREDDED).
4. IF THE IRRIGATION HOSE IS DAMAGED OR DISTURBED, THE CONTRACTOR SHALL REPLACE IT IN KIND.
5. IF METAL FENCE IS DAMAGED, THE CONTRACTOR SHALL REPLACE IT IN KIND.
6. ORANGE SAFETY FENCE SHALL BE PLACED TO LIMIT THE DISTURBED AREA.
7. MATERIAL TO BE USED AS FILL FOR PROPOSED IMPROVEMENTS MUST BE REMOVED FROM WITHIN THE FLOOD LIMIT AREA TO MAINTAIN BALANCE OF THE CUT AND FILLS WITHIN THE FLOOD PLAIN.
8. APPROXIMATE FLOOD LIMIT DRAWN FROM FEMA MAP.
9. SEE CT DOT STANDARD DETAIL FOR PLANTING DETAILS

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

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Purpose	Released by	Date
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○ For Construction		

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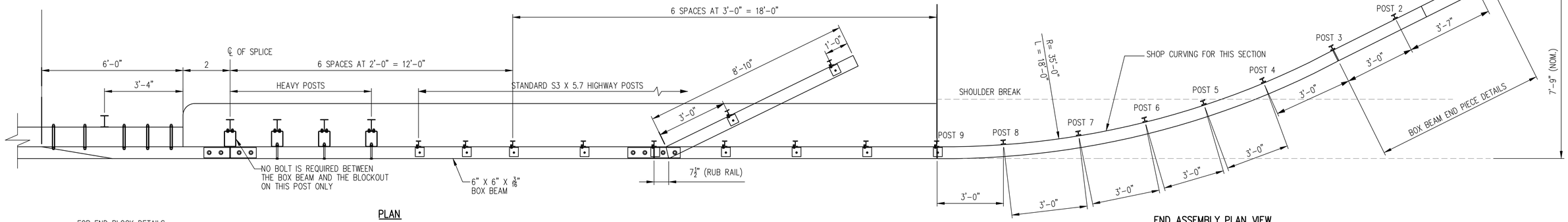
PHILLIP M. PAWELCYZK PROPERTY PLAN

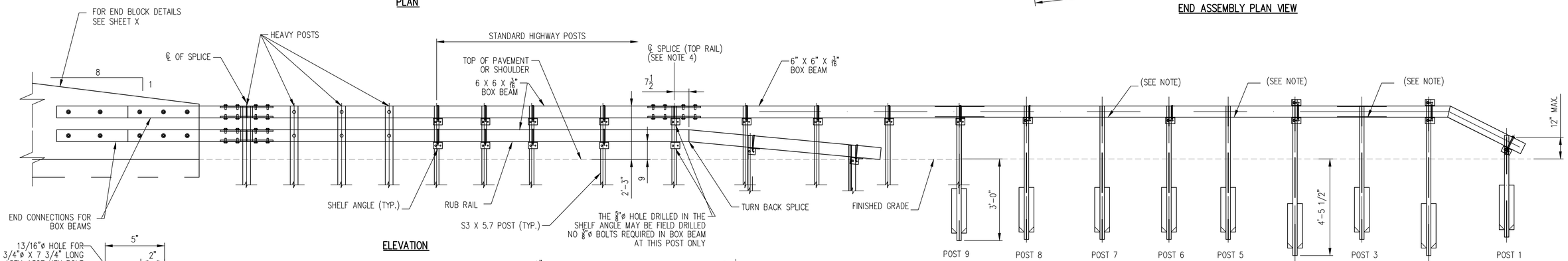
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	36	0
Scale 1" = 10'-0"			



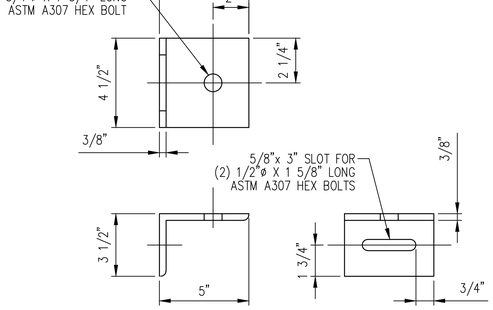
PLAN

END ASSEMBLY PLAN VIEW

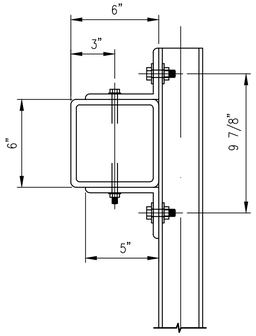


ELEVATION

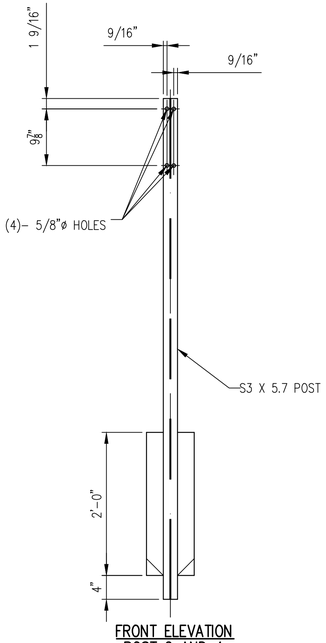
END ASSEMBLY ELEVATION



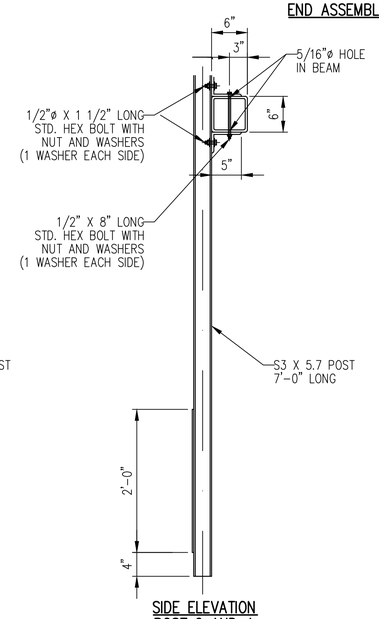
BRACKET DETAILS
POST 1



(S4) POSTS 2 AND 4 CONNECTION DETAIL



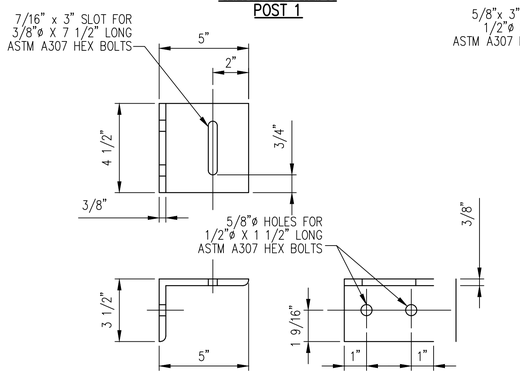
FRONT ELEVATION
POST 2 AND 4



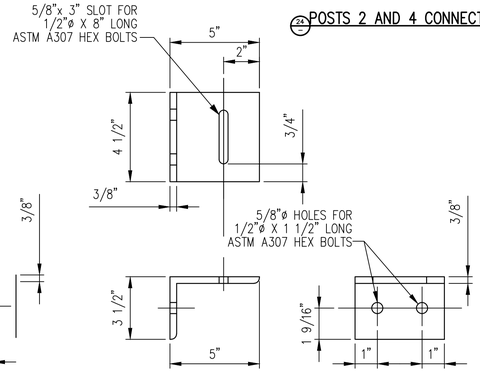
SIDE ELEVATION
POST 2 AND 4

TYPE IIA NOTES:

1. POSTS 2, AND 4 SHALL BE EXTRA LONG POSTS. POSTS 3, 5, 6, 7, 8, AND 9 SHALL BE STANDARD LENGTH.
2. POSTS 2 AND 4 SHALL BE FASTENED TO THE RAIL USING DETAIL 24.
3. FOR SIDE SLOPES 1:5 OR FLATTER, THE 18' OF CURVED BOX BEAM MAY BE PROVIDED IN A CURVED PORTION OF A 24' OR 36' PIECE. OTHERWISE, AN 18' SECTION IS TO BE SPLICED AT THE POINT OF TANGENCY.
4. POSTS 3, 5, AND 7 SHALL NOT BE CONNECTED TO BOX BEAM GUIDE RAIL.
5. FOR DESIGN SPEEDS UNDER 50 MPH THE POINT OF REDIRECTION WILL BE AT THE POINT OF TANGENCY.



BRACKET DETAILS
POSTS 3, 5, 6, 7, 8 AND 9



BRACKET DETAILS
POSTS 2 AND 4

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
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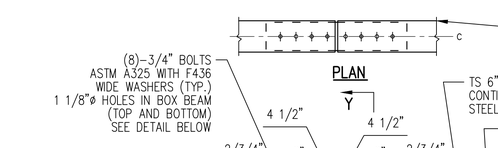
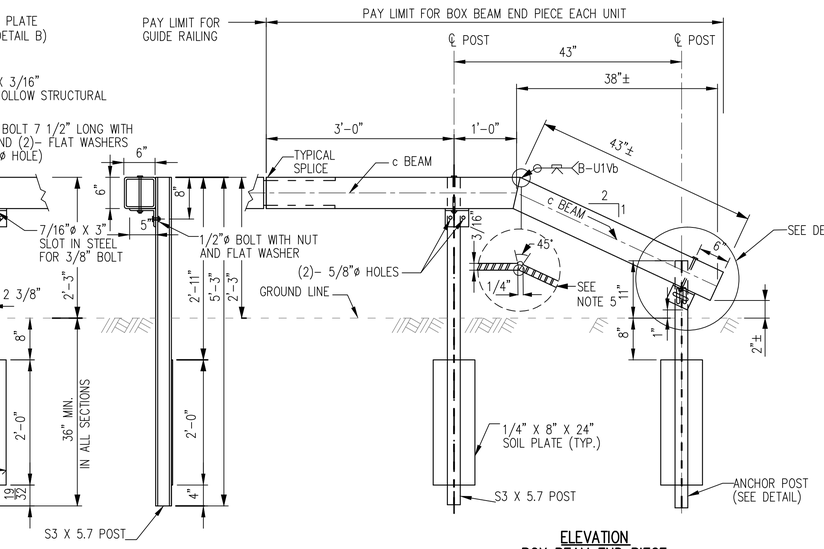
BOX BEAM GUIDE RAIL 1

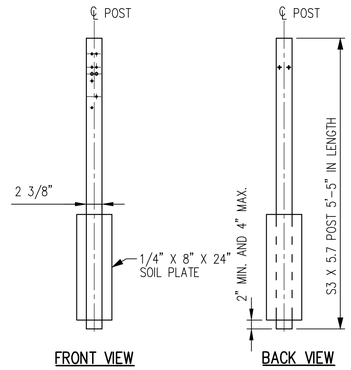
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

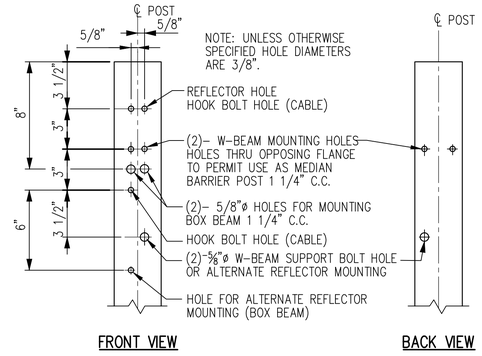
Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	37	0

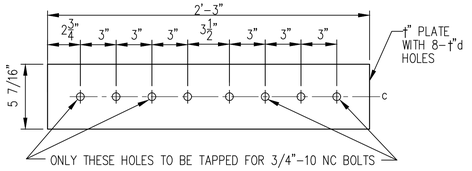
Scale: AS SHOWN

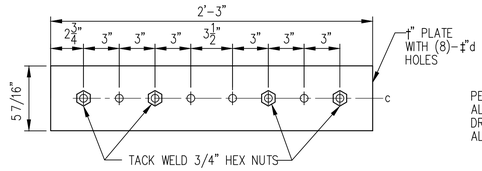


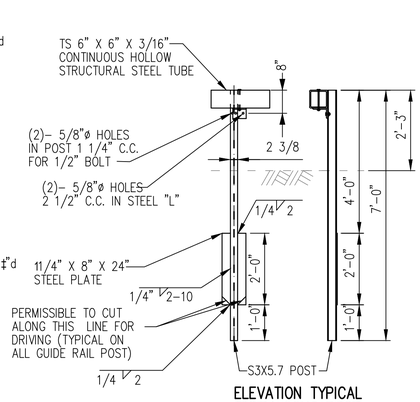


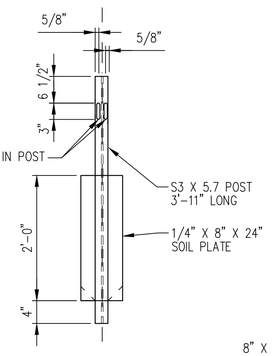


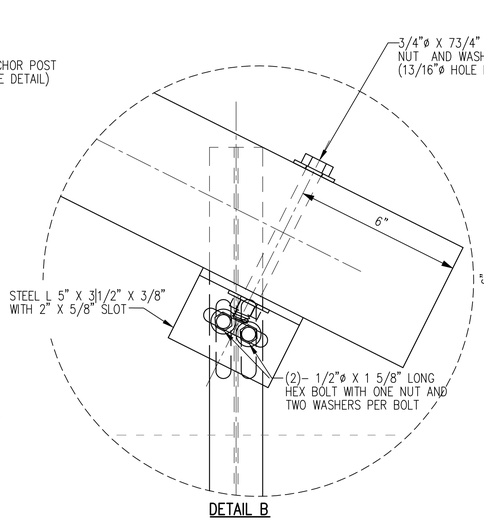


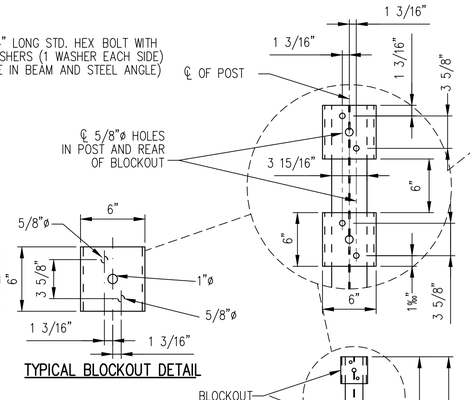


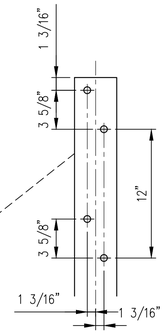


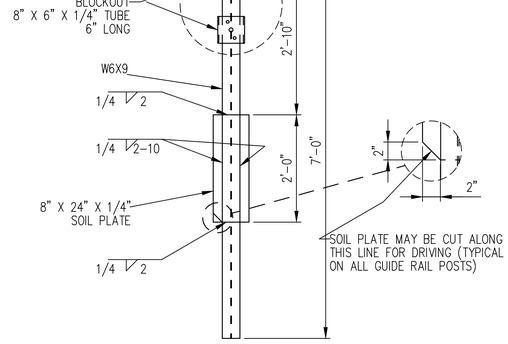


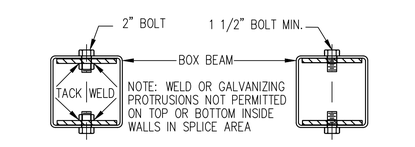


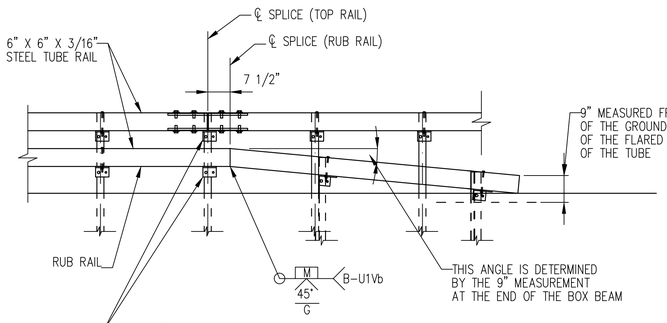


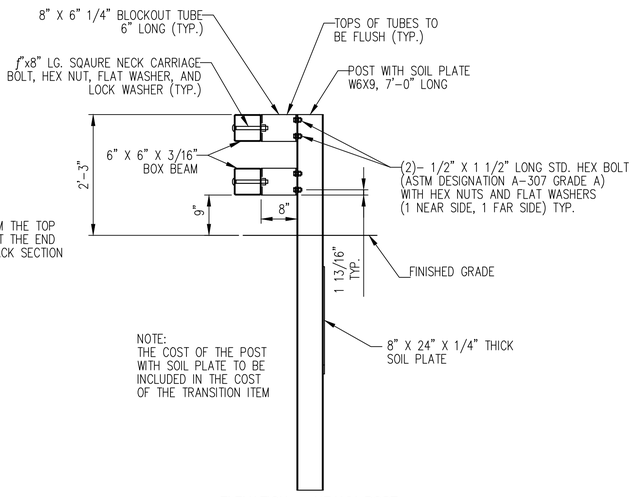












Rev	Date	Revision	Approved

DRAWING CONTROL

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Purpose	Released by	Date
○ For Comment		
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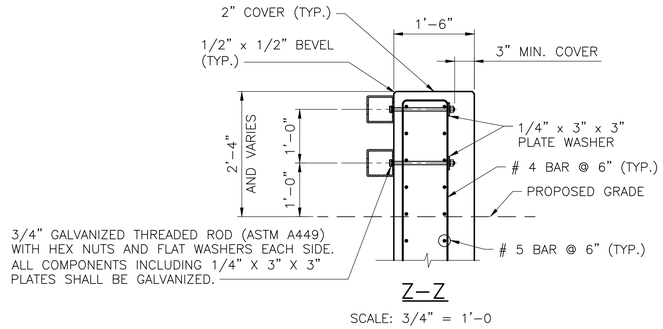
BOX BEAM GUIDE RAIL 2

REHABILITATION OF BRIDGE NO. 03651 NORTH MAIN STREET OVER WEST BRANCH OF TROUT BROOK WEST HARTFORD, CONNECTICUT

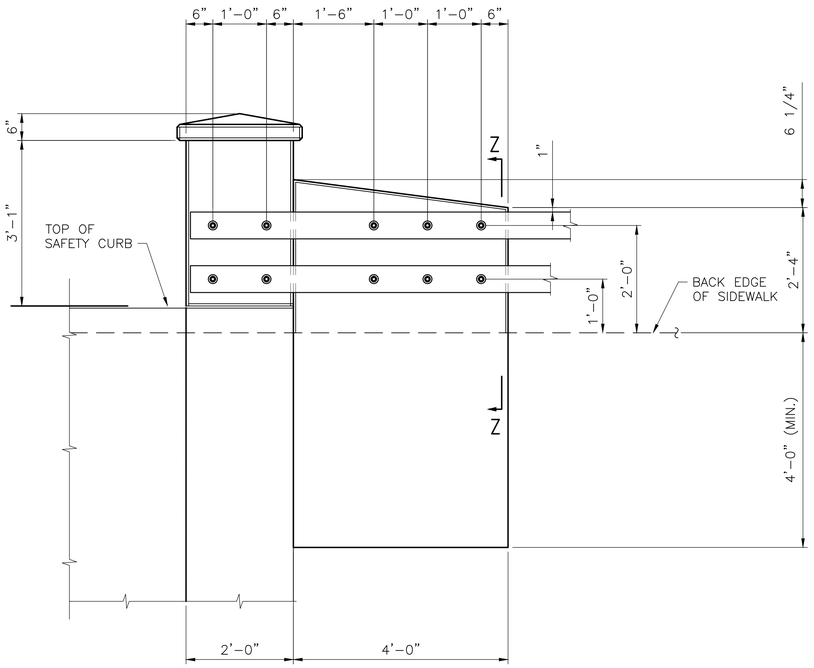
Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	38	0

Scale: AS SHOWN



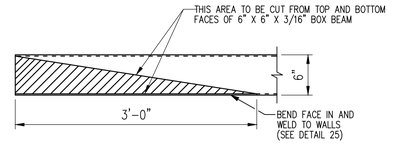
Z–Z

SCALE: 3/4" = 1'-0



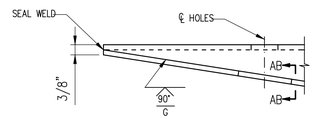
ELEVATION – END CONNECTION FOR BOX BEAM GUIDE RAIL

SCALE: 3/4" = 1'-0



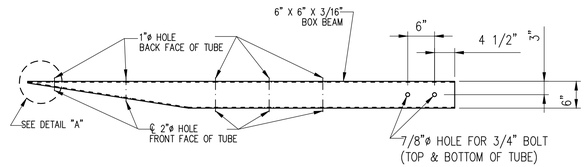
CUT DETAIL – END CONNECTION

N.T.S.



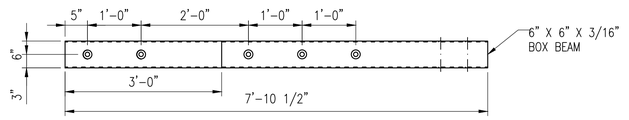
DETAIL 25

N.T.S.



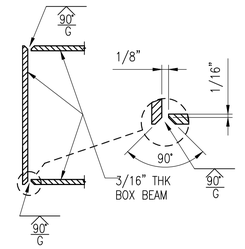
PLAN – END CONNECTION FOR BOX BEAM GUIDE RAIL

SCALE: 3/4" = 1'-0



ELEVATION – END CONNECTION FOR BOX BEAM GUIDE RAIL

SCALE: 3/4" = 1'-0



SECTION AB

N.T.S.

Rev	Date	Revision	Approved

DRAWING CONTROL

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Purpose	Released by	Date
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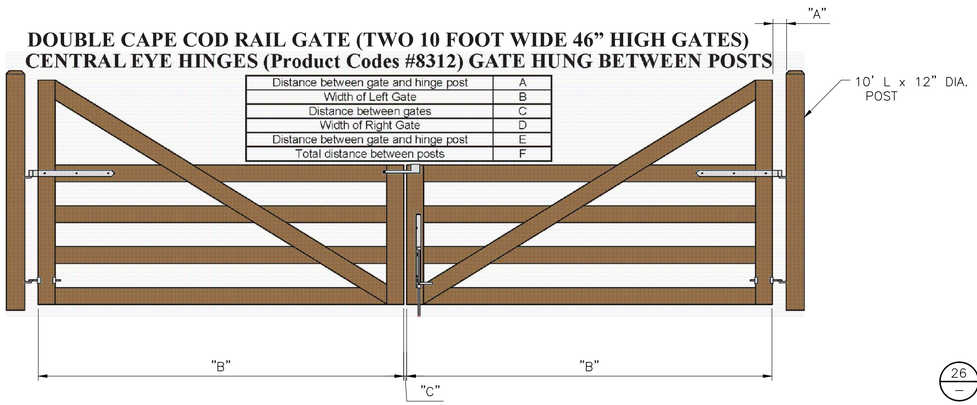
RAIL CONNECTION AND END BLOCK DETAILS

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	39	0

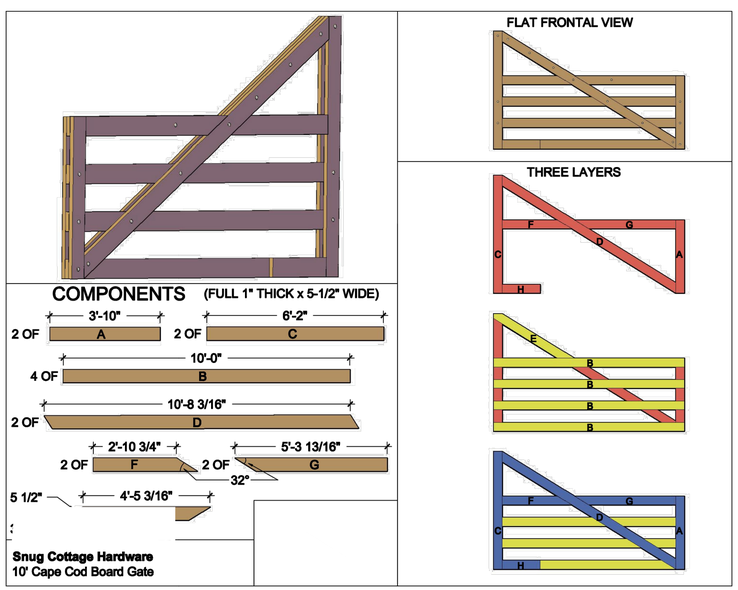
Scale: AS SHOWN

DOUBLE CAPE COD RAIL GATE (TWO 10 FOOT WIDE 46" HIGH GATES)
CENTRAL EYE HINGES (Product Codes #8312) GATE HUNG BETWEEN POSTS

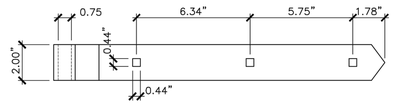


Dimensions (feet and inches)					
A	B	C	D	E	F
4.5"	10'	1"	10'	4.5"	20' 10"

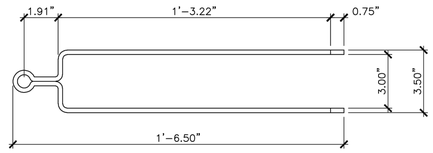
Hardware Required	
2 Galvanized Finish	
Hinge Sets	Two Sets Include
Fasteners included with hardware	2 - 18 inch double strap 2 - adjustable bottom gate fitting 4 - 12" adjustable gate pin
Cane Bolt Vertical	
Lumber Required	
Posts	2 of 10' x 6" x 12" Dia.
Rails	8 of 10' x 1" x 5.5"
Stiles	6 of 8' x 1" x 5.5"
Diagonals	4 of 12' x 1" x 5.5"
Filler Blocks	4 of 12' x 1" x 5.5"
Fasteners Required	
Approximately 100 of 1.75" x #8 wood screws (stainless preferred)	
36 of 3.5" x 3/8" carriage bolts (hot dipped galvanized), nuts, and washers	



GATE COMPONENTS
ALL DIMENSIONS ± .125"

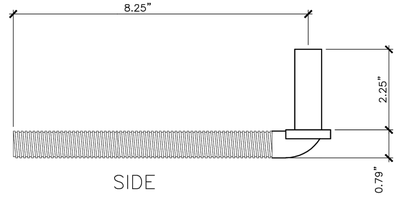


SIDE

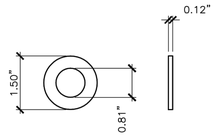


TOP

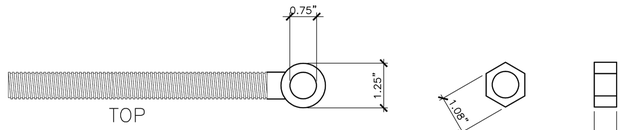
26 18" CENTRAL EYE DOUBLE STRAP HINGE
ALL DIMENSIONS ± .125"



SIDE

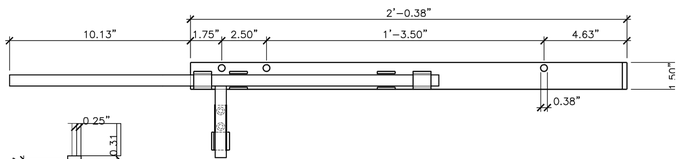


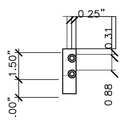
WASHER X2



TOP

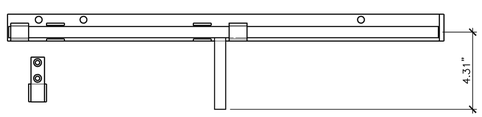
27 12" x 3/4" THREADED ADJUSTABLE "J" BOLTS
ALL DIMENSIONS ± .125"



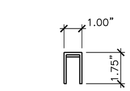


FRONT VIEW LATCH

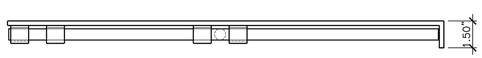
FRONT – SLIDE BOLT EXTENDED



FRONT – SLIDE BOLT PULLED IN



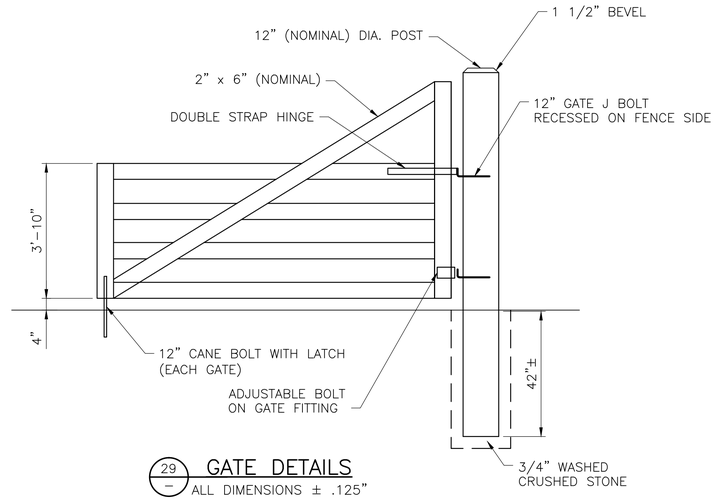
SIDE VIEW LATCH



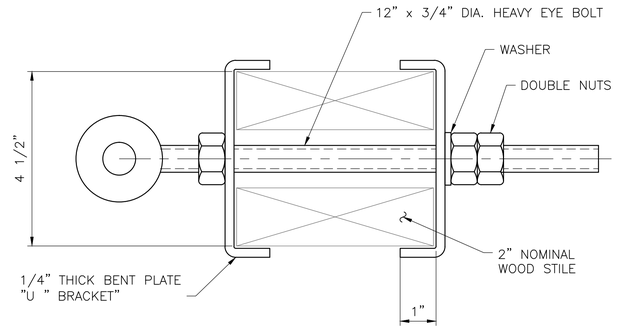
SIDE VIEW – SLIDE BOLT PULLED IN

NOTE:
PAIR WITH ITEM #5000-002/00SP TO USE AS A GATE LATCH

28 12" SLIDE BOLT GATE LATCH / CANE BOLT WITH LATCH
ALL DIMENSIONS ± .125"



29 GATE DETAILS
ALL DIMENSIONS ± .125"



30 ADJUSTABLE BOTTOM GATE FITTING DETAIL
ALL DIMENSIONS ± .125"

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

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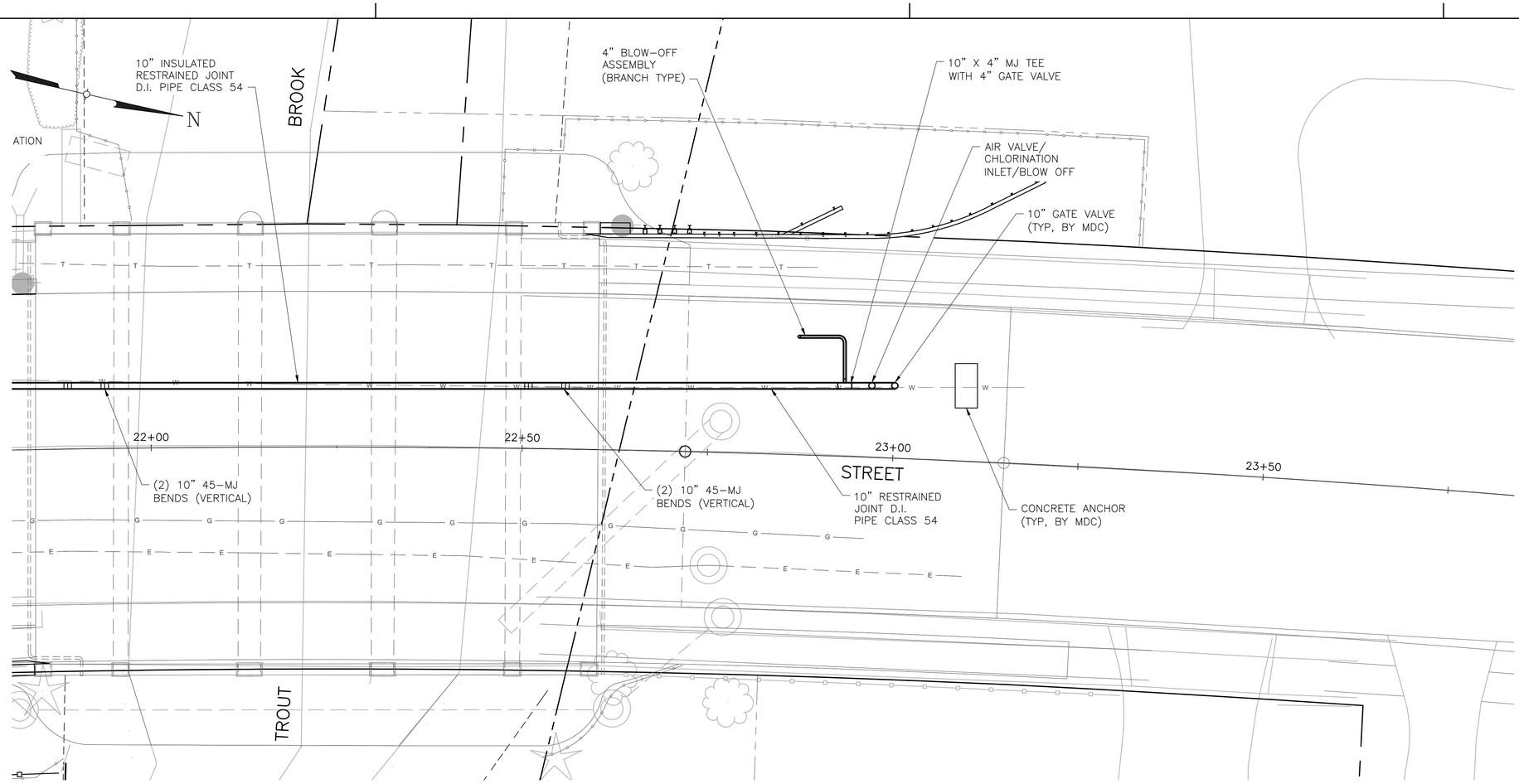
GATE DETAILS

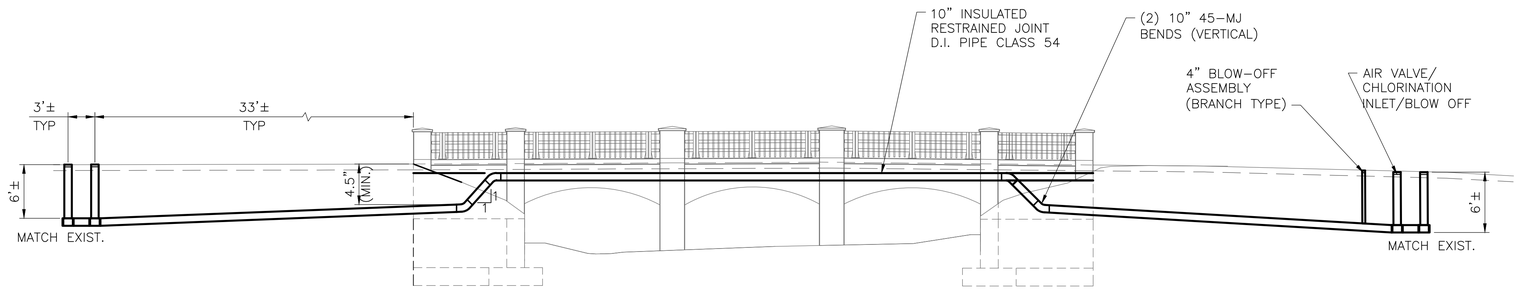
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	40	0
Scale: NTS			



PLAN

SCALE: 1" = 8'-0"



WATERMAIN REPLACEMENT ELEVATION

SCALE: 1" = 8'-0"

STANDARD WATER MAIN NOTES:

STANDARD WATER MAIN NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS.
2. ALL PIPE SHALL BE CLASS 54 ANSI/AWWA C151/A21.51-81 RESTRAINED JOINT DUCTILE IRON PIPE CENTRIFUGALLY CAST IN METAL MOLDS OR SAND LINED MOLDS FOR WATER OR OTHER LIQUIDS.
3. ALL DUCTILE IRON PIPE WATER MAIN AND FITTINGS JOINTS SHALL BE RESTRAINED.
4. ALL PIPE AND FITTINGS SHALL BE INSULATED TO A POINT WHERE A MINIMUM OF 4.5' OF COVER IS MAINTAINED.
5. THE WATER MAIN SHALL BE BUILT BY A LICENSED PLUMBER UNDER THE SUPERVISION OF THE MDC DIRECTOR OF ENGINEERING AND PLANNING OR THEIR DESIGNEE.
6. "CALL BEFORE YOU DIG" - THE CONTRACTOR IS HEREBY REMINDED THAT TITLE 16, CHAPTER 293 OF THE CONNECTICUT GENERAL STATUES REQUIRES NOTIFICATION OF THE UTILITY COMPANIES OF PENDING EXCAVATION AT OR NEAR PUBLIC UTILITIES, THE CONTRACTOR SHALL CALL 1-800-922-4455 AT LEAST 48 HOURS PRIOR TO BEGINNING THE EXCAVATION.
7. ALL FEDERAL AND STATE OSHA SAFTEY STANDARDS MUST BE FOLLOWED DURING WATER MAIN INSTALLATIONS AND TESTING, INCLUDING 29 CFR 1926.650 - 1926.652, THAT ADDRESS EXCAVATION WORK AND REQUIREMENTS FOR PROTECTIVE SYSTEMS.
8. TEST PITS SHALL BE DUG WELL IN ADVANCE OF THE WATER MAIN INSTALLATION TO DETERMINE POSSIBLE OFFSETS ABOVE OR BELOW OTHER UTILITIES, STRUCTURES OR OBSTACLES.
9. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER A MATERIALS LIST, WITH SUBMITTALS FOR APPROVAL, PRIOR TO THE INSTALLATION OF THE PROPOSED WATER MAIN.
10. TEST PRESSURE SHALL BE 150 PSI, AS DETERMINED BY THE METROPOLITAN DISTRICT.
11. ALL WATER MAIN AND APPURTENANCES SHALL BE STAKED (SURVEYED) OUT BY A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF CONNECTICUT. THE SURVEY SHALL INCLUDE AN OFFSET LINE OR STREET LINE EVERY FIFTY FEET (50'0"), FINAL ROAD OR SURFACE ELEVATION.
12. GATE OPERATIONS FOR THIS PROJECT SHALL BE "OPEN RIGHT".
13. ALL FITTINGS, UNLESS OTHERWISE SPECIFIED, SHALL BE MECHANICAL JOINT AND SHALL BE INSTALLED WITH RESTRAINT IN EACH DIRECTION.
14. WHERE "PULLING" OR DEFLECTING THE PIPE IS INDICATED, SUCH DEFLECTION SHALL BE DONE IN ACCORDANCE WITH THE RECCOMMENDATIONS OF THE "DIPRA HANDBOOK". IN NO CASE SHALL THE DEFLECTION BE GREATER THAN 5 DEGREES.
15. AFTER PLACING APPROXIMATELY TWO FEET (2'0") OF BACKFILL MATERIAL OVER THE WATER MAIN, THE CONTRACTOR SHALL PLACE A SIX-INCH WIDE STRIP OF DURABLE, NON-DETECTABLE, COLOR CODED (BLUE FOR WATER) UNDERGROUND UTILITY DETECTION TAPE IMPRINTED WITH THE APPROPRIATE WARNING INDICATING THE PRESENCE OF A BURIED UTILITY CONDUIT.
16. CONTRACTOR SHALL ASSIST THE DISTRICT STAFF WITH THE FILLING, FLUSHING AND TESTING OF THE WATER MAIN. THE CONTRACTOR SHALL ABIDE BY THE DISTRICT'S STANDARDS FOR DISINFECTING WATER MAINS, INCLUDING PROPERLY NEUTRALIZING THE CHLORINATED WATER AND DISCHARGING THE WATER ACCORDINGLY.
17. SHOULD THE WATER MAIN FAIL TO PASS THE REQUIRED PHYSICAL, CHEMICAL AND BIOLOGICAL PARAMETERS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-INJECTING THE WATER MAIN WITH THE PROPER QUANTITY OF LIQUID HYPOCHLORITE SOLUTION, AT NO EXPENSE TO THE DISTRICT.

NOTES:

1. WATER MAIN DESIGN WAS PROVIDED BY MDC.
2. LATERAL LOCATION SHALL MATCH ORIGINAL LOCATION.

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
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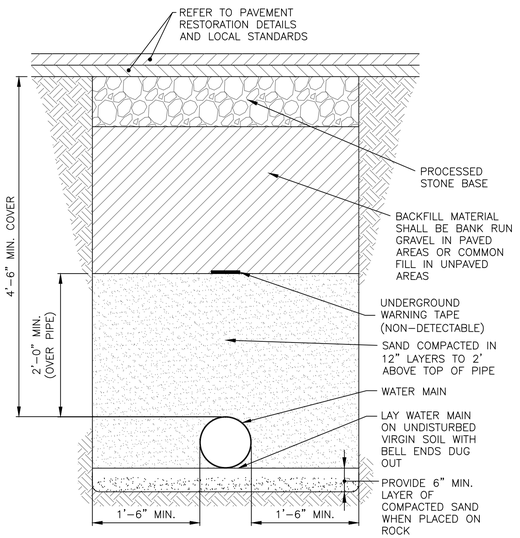
WATERMAIN REPLACEMENT

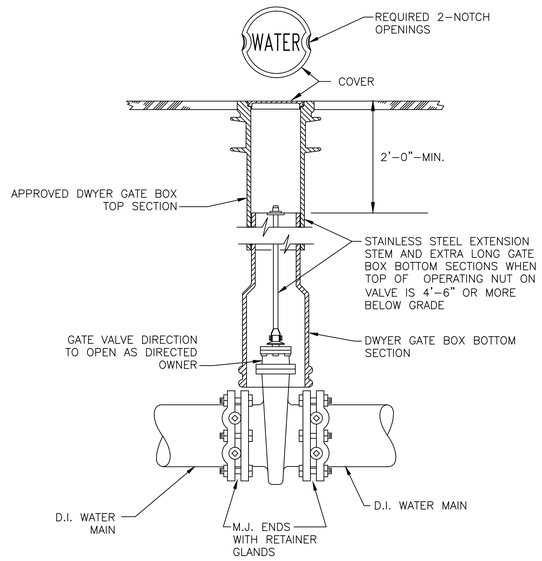
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	41	0
Scale: AS SHOWN			



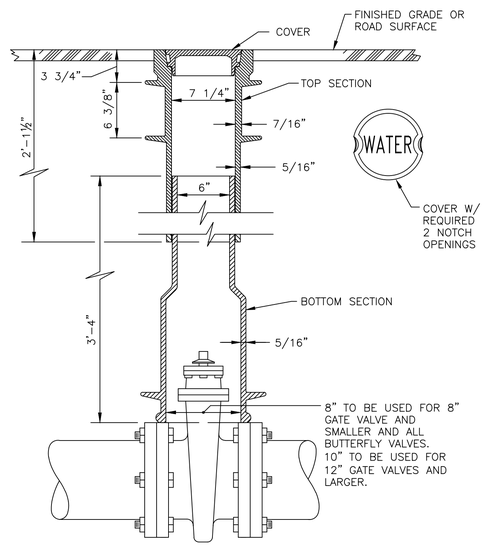
WATER MAIN TRENCH

DETAIL 31 – NTS



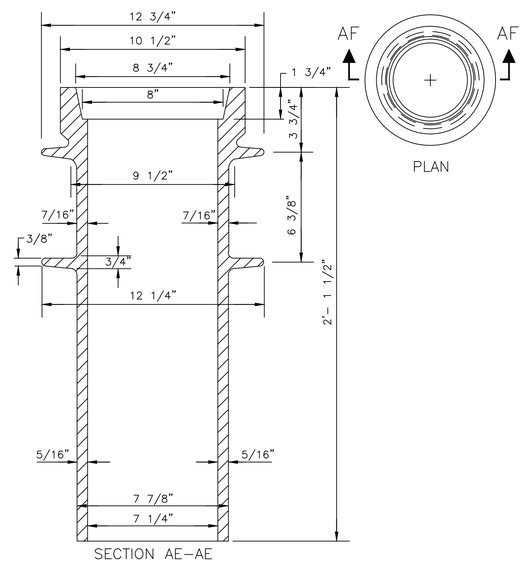
STANDARD GATE VALVE 12-INCH AND SMALLER

DETAIL 32 – NTS



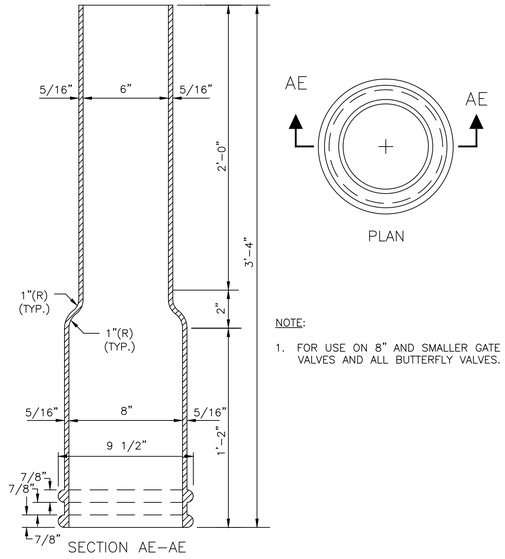
STANDARD GATE BOX ASSEMBLY (DWYER TYPE)

DETAIL 33 – NTS



CAST IRON GATE BOX TOP SECTION (DWYER TYPE)

DETAIL 34 – NTS

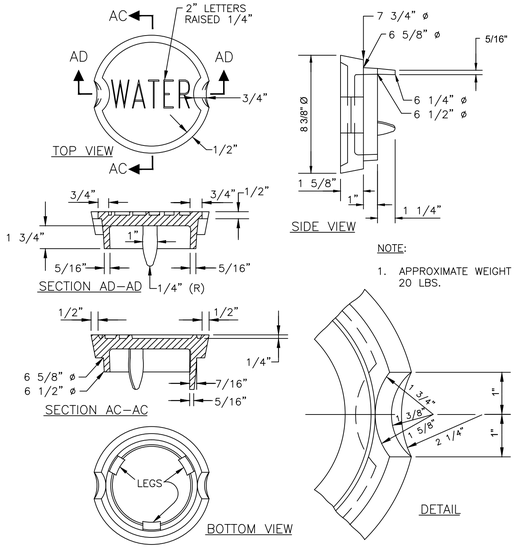


NOTE:

1. FOR USE ON 8" AND SMALLER GATE VALVES AND ALL BUTTERFLY VALVES.

CAST IRON GATE BOX BOTTOM SECTION 8-INCH (DWYER TYPE)

DETAIL 35 – NTS

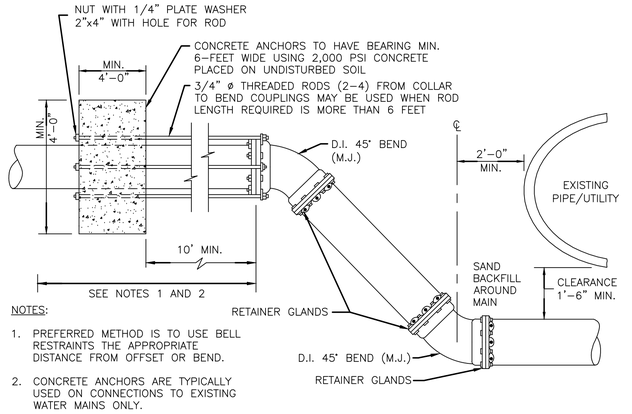


NOTE:

1. APPROXIMATE WEIGHT 20 LBS.

CAST IRON GATE BOX COVER (DWYER TYPE)

DETAIL 36 – NTS



NOTES:

1. PREFERRED METHOD IS TO USE BELL RESTRAINTS THE APPROPRIATE DISTANCE FROM OFFSET OR BEND.
2. CONCRETE ANCHORS ARE TYPICALLY USED ON CONNECTIONS TO EXISTING WATER MAINS ONLY.

RESTRAINED OFFSET WITH CONCRETE ANCHOR

DETAIL 37 – NTS

NOTE:
THESE DETAILS WERE PROVIDED BY MDC.

0 1 2 3
ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL

Designed by: J.A.S.	Drawn by: K.R.F.	Checked by: J.A.S.
Purpose	Released by	Date
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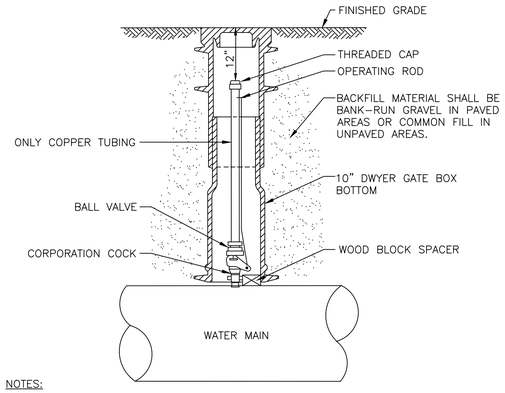
WATERMAIN REPLACEMENT

REHABILITATION OF BRIDGE NO. 03651 NORTH MAIN STREET OVER WEST BRANCH OF TROUT BROOK WEST HARTFORD, CONNECTICUT

Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	42	0
Scale: AS SHOWN			



NOTES:

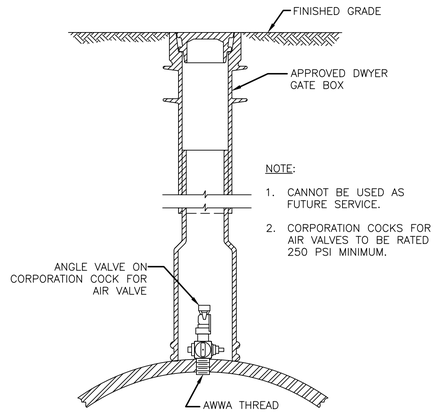
1. CHLORINATION INLET/BLOWOFF MAY BE CONVERTED TO AN AIR VALVE OR USED AS A STERILIZATION SAMPLING POINT.
2. CANNOT BE USED FOR FUTURE SERVICE.
3. A CHLORINATION/SAMPLING ASSEMBLY SHALL BE REMOVED ONCE WATER MAIN PASSES SAMPLING. CORPORATION SHALL EITHER BE CONVERTED TO AIR VALVE OR ABANDONED PRIOR TO FINAL PAVEMENT RESTORATION.

MAIN SIZE	CORPORATION COCK	BALL VALVE, HARD COPPER PIPING & THREADED CAP
6"–12"	¾" X 1"	1"
16"–42"	1½" X 2"	2"

AIR VALVE / CHLORINATION INLET / BLOW-OFF

DETAIL 38

NTS



NOTE:

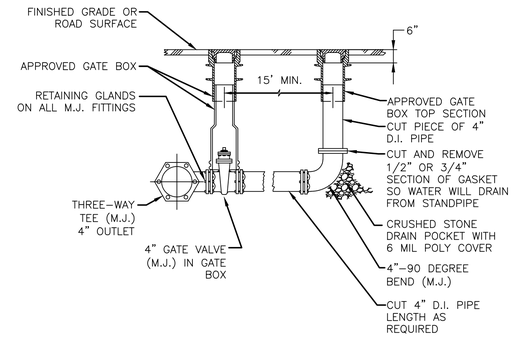
1. CANNOT BE USED AS FUTURE SERVICE.
2. CORPORATION COCKS FOR AIR VALVES TO BE RATED 250 PSI MINIMUM.

MAIN SIZE	MIN. SIZE AIR VALVE	CORPORATION COCK	ANGLE VALVE SIZE
6"–12"	¾"	¾" X 1"	1"
16" & 20"	1"	1" X 1"	1"
24" & 30"	1¼"	1¼" X 1½"	1½"
36" & 42"	1½"	1½" X 2"	2"
48" & 54"	2"	2" X 2"	2"

STANDARD AIR VALVE

DETAIL 39

NTS



4-INCH BLOW-OFF ASSEMBLY (BRANCH TYPE)

DETAIL 40

NTS

NOTE:
THESE DETAILS WERE PROVIDED BY MDC.

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0 1 2 3

ORIGINAL SIZE IN INCHES

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WATERMAIN REPLACEMENT

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Date	Work Order	Drawing No.	Rev
3-02-15	6550.01	43	0
Scale: AS SHOWN			